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EXTRACTS

FROM

A JOURNAL,

WRITTEN

ON THE COASTS OF

CHILI, PERU, AND MEXICO,

IN THE YEARS

1820, 1821, 1822,

BY

CAPTAIN BASIL HALL, R.N.

F. R. S.

IN TWO VOLUMES.

VOL. I.

EDINBURGH:

PRINTED FOR ARCHIBALD CONSTABLE AND CO.
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EXTRACTS
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CHAPTER XXVII.

SKETCH OF THE DUTIES OF THE NAVAL COMMANDER-IN-CHIEF ON THE SOUTH AMERICAN STATION, BEFORE THE APPOINTMENT OF CONSULS.

THE nature of the service on the coast of South America, is so little known to the public, that a slight sketch of its general features may, perhaps, be read with interest; and it will serve to place the delicate nature of our situation in a more distinct point of view.

Owing to the unacknowledged political existence of the South American governments, they were for some time diplomatically neglected by European nations; Great Britain, at least, had no Ambassador there, nor Consuls, nor indeed any public authorities whatever, until towards the end of 1823. But as the commerce of those countries, upon being freed from the Spanish yoke, immediately became considerable, and was rapidly increasing; and

as many British merchants were resident there, and much commercial capital was floating about, it became necessary that some protection should be afforded to those interests, and a watchful eye kept over the proceedings of States which, though still in their infancy, were nevertheless respectable from their wealth and extent.

As it had always been usual to station men-of-war wherever commerce was in activity, there was nothing novel, or calculated to excite jealousy, in our having a squadron in South America. The duties of this squadron became important in proportion as the new States, feeling their growing strength, were inclined to give trouble, either by oppressive commercial laws, or by interfering with the personal liberty, and sometimes by detaining the ships, of our countrymen. Many of the countries of which we are speaking were then, it must be recollected, in a state of war. Some of their ports were blockaded, and every source of jealousy and distrust let loose. Others had more than one government—and the consequent confusion was greatly augmented by the eagerness of commercial speculation, which led many individuals to despise all prudence, and all local regulations, in order, at every hazard, to force their trade: this was naturally followed by seizures, confiscations, and a long train of appeals. The governments, too, were often ignorant of what was customary; and were generally obstinate in proportion to their ignorance. Not unfrequently they were right—and our own countrymen were not always easily defended. Under these circumstances, the greatest temper and judgment, and the nicest discretion, were necessary.

It is scarcely possible, without entering into long details, to afford a just conception of the effective manner in which these complicated duties were conducted by Sir Thomas Hardy, Commodore and Commander-in-chief.

It will be easily understood why services of this nature are not suited to strike the public eye in a Gazette ; but it is certainly to be lamented, that the successful exercise of such qualities should be confined to the knowledge of a few officers whom accident had placed within its view, and be utterly unknown to the public, and to the body of the naval service, to whom the example is of so much consequence. These things are the more worthy of remark, from their requiring an exertion of powers very different from those which it has heretofore been almost the exclusive duty of officers to cherish. It is pleasing also to see that patient forbearance and conciliatory kindness may, at times, prove quite as useful to the public service, as the more energetic qualities of enterprise and action.

In South America, indeed, where we were at peace, any show of violence must have been mischievous to the British interests, and could have accomplished nothing. Yet there was no want of provocation ; for injustice was often committed, and the national honour, it might seem, sometimes threatened ; and although there could not for a moment be a question, that these things required adequate redress, yet there was no ordinary skill and dexterity displayed in seeking and obtaining it, so as always to leave things better for us than they were before. These cases were scarcely ever alike, so that experience did little more than teach the truth and solidity of the principles by which our conduct was

directed to be regulated. Had we always had right on our side,—that is, had the commercial transactions which it became our duty to protect always been pure, and the displeasure of the governments always unjust, the service would have been easier; but it sometimes happened otherwise. Many prizes, or rather detentions, were made by the Patriot squadrons, on the strongly supported plea of having Spanish property on board—British sailors reported that they had been forcibly detained, and made to fight against the allies of their country—Masters and supercargoes of ships complained that they had been plundered on the high seas, under the form of local usage and the exaction of regular duties—Englishmen represented themselves as being unjustly imprisoned—each party charged us with favouring their opponents—the crews of ships, taking advantage of the general state of confusion, mutinied, and refused to do their duty:—in short, all was out of order; nothing was flowing in its natural course; everything being under the guidance of men whose passions were at their height; and whose minds were in such a frame, that they interpreted whatever occurred in the worst language it would bear. This total dislocation of society was not confined to a single port, or a single state, but extended, more or less, over the whole Continent, threatening all social order and personal security, as well as destruction to the great mass of commerce, which, notwithstanding the forbidding aspect of affairs, was always ready to flow in at every casual opening, in spite of prudence and experience.

At a time when very few, if any other man, saw his way clearly through this dark and troubled pre-

spect, Sir Thomas Hardy appears never to have faltered, or been at a loss; and this confidence, as he sought on every occasion to impress on the minds of his officers, consisted principally in their keeping themselves pure and disinterested, and in avoiding all share in what was going on—in maintaining themselves, above all things, free from political party-spirit on every hand; and whatever apparent provocation might arise, never considering the disrespect intentional, unless it were obvious: being slow, in short, to take offence, national or personal, unless it could not be mistaken; and recollecting, in every consequent explanation, that a voluntary acknowledgment, however trifling, was always better than any extent of apology that was compulsory. When decision and firmness, however, became necessary, as they sometimes did, the different new governments and their servants speedily learnt that nobody could be more immovably resolute than Sir Thomas Hardy. Yet the sentiment of respect and personal esteem which his private habits and public conduct had inspired, not only amongst the Spaniards and the native powers, but amongst the strangers, who, from motives of gain, had sought that country, was of a far kinder nature; and in all probability it was essentially owing to this circumstance, that his influence became so commanding and extensive. He was trusted implicitly everywhere, and enjoyed in a wonderful degree the confidence and hearty good-will of all parties, however opposed to one another. His advice, which was never obtruded, was never suspected; and a thousand bitter disputes were at once settled amicably, by a mere word of his, and to the advantage of all concerned, instead of being

driven into what are called national questions, to last for years, and lead to no useful end. When this respect and confidence had once become fully established, everything went on so smoothly under his vigilant auspices, that it was those only who chanced to be placed near this strange scene of political violence who could perceive the extent, or appreciate the importance, of the public good which he was silently dispensing—as, in a well-steered ship, a stranger is unconcious how much he owes to the silent operation of the helm, or how much merit belongs to the hand which, unseen, guides the motions of the whole. It is on this account that I say so much on services, which, unlike this officer's former exploits in war, do not speak for themselves, but which are nevertheless in the highest degree entitled to public gratitude, and certainly are most worthy of professional imitation.*

* This notice was first printed in Marshall's Naval Biography, a work of great merit.

CHAPTER XXVIII.

CHILI.

PART OF GUASCO—VILLAGE OF ASIEN TO—COPPER
MINE—BEAUTY OF THE WOMEN.

ON Monday the 19th of November, we sailed from Coquimbo for Guasco, another port from which the produce of the mines is exported. We anchored at two o'clock on the 20th of November, and in about an hour afterwards were mounted, and on our way to a village called the Asiento, or seat of the mines. It lies about five leagues from the sea, on the left bank of a stream of snow water, which, though not large, is sufficient to give full verdure to the flat bottom of the valley through which it flows, and to place it in agreeable contrast to the rest of the country, which is a sandy desert in every direction.

Within the space of one month, we had now witnessed all the different degrees of fertility and desolation. At Concepcion, in the South of Chili, the eye is delighted with the richest and most luxuriant foliage; at Valparaiso, which lies between one and two hundred miles farther north, the hills are poorly clad with a stunted brushwood, and a faint attempt at grass, the ground looking everywhere starved and naked; at Coquimbo, even this brushwood is gone, and nothing left to supply its place

but a wretched sort of prickly-pear bush, and a scanty sprinkling of wiry grass: at Guasco, four degrees nearer the Equator, there is not a trace of vegetation to be seen, all the hills and plains being covered with bare sand, excepting where the little solitary stream of water, caused by the melting of the snow amongst the Andes, gives animation to the channel, which conducts it to the sea. The respective latitudes of these places are 37° , 33° , 30° , and $28\frac{1}{2}^{\circ}$ south, and I fear that no degree of civilization or industry can ever ameliorate the desolation of the arid portion of this coast. Beyond a certain latitude no rain ever falls, and as no streams of any magnitude flow from the Andes to the west, the desert must remain for ever uncultivated.

The village of Asiento is pleasantly situated on the banks of the river, with gardens and trees between the houses and the stream, and shady walks reaching from the doors to the water. We were kindly received by a gentleman connected in the mining business with our Coquimbo host, who accompanied us on this excursion.

As our time was short, we proceeded immediately to see the operation of smelting the copper-ore, in the rude manner of the country. On coming to the river, we found it unusually swollen, owing to a thaw in the upper country: the guide hesitated, for some time, as to the possibility of crossing, till one of the officers of the ship, followed by the rest of the party, cut the matter short by plunging in; and although we were all drifted a considerable way down, we at length reached the opposite bank, soundly ducked, but in safety.

The Chilian smelting-furnace resembles a small

lime-kiln, covered at top with a sort of dome, open on one side, and terminating in a chimney. The copper-ore being broken into pieces of the size of a walnut, is placed in layers alternately with fire-wood, till the whole is filled up to the open space. The wood being kindled, a steady blast is introduced beneath from two pairs of bellows, worked by cranks, attached to the axis of a water-wheel, of a slight construction, which, instead of being fitted with buckets, is encircled with a series of projecting boards, shaped like spoons, upon which the water, falling in a perpendicular stream, is made to play. The melted ore is allowed to run out at a hole in the lower part of the furnace, closed up by clay during the smelting, and afterwards opened in the usual way, by forcing in a heavy iron bar. The metal, which, at the first operation, comes out in a very impure state, is thrown into water while hot, and then scraped by iron instruments to remove the slags and dross. It is next melted in the refining furnace, and drawn off into moulds about twenty inches long, twelve wide, and three or four thick. In this state it is exported.

We forded the river again with still more difficulty; as it had risen considerably in the interval, and, after getting fairly across, paid a visit to a family, who had assembled before their door to watch our dangerous navigation. It is a pleasant fashion in these countries, that a stranger may enter any house, at any hour, and always be sure of a welcome reception. On the present occasion, our visit was peculiarly well bestowed, as it afforded the people an opportunity of a nearer view of the strangers, whom they seldom saw, and who, we found, were objects of no small curiosity:

wherever we went, indeed, we were accompanied by a train of wondering children ; and, on passing along the streets, all the doors and windows were filled with gaping heads. We were the last people in the world to object to being thus made shows of ; particularly as it afforded us in return an opportunity of seeing all the inhabitants. The women were much fairer in complexion than the natives of the other parts of Chili ; and it may be here remarked, that we did not find the depth of colour in the skin so much dependent upon latitude and temperature as it is usually supposed to be. The men at Guasco are a fine race, well made, and generally handsome ; with graceful, and rather gentle manners. Most of the women we saw, both in figure and countenance, were handsome ; indeed, we scarcely met with one, out of many hundreds, who had not something pleasing either in look or person ; and what is more rare in hot countries, this remark extends to elderly women. Although considerably fairer than any South Americans we had yet seen, the natives of Guasco were all characterised by the dark eye and long black hair of their Spanish ancestors.

Immediately after breakfast, next morning, a party was formed to explore a copper mine in the neighbourhood. We had to wind by tiresome sandy paths up a steep hill, at the top of which we were met by one of the workmen, who led us to the mouth of a mine called La Gloria. The opening was not more than six feet across, and, as the descent was very crooked, we were soon obliged to light candles, one of which each person carried in a forked stick. The mine was so steep, and the roof so low, that it was difficult, and sometimes danger-

ous, to proceed; but by persevering, we reached the bottom, at the depth of a hundred and fifty feet from the surface. The whole rock, forming the mountain, seemed to be impregnated with copper; some strata, however, and, occasionally, quartz veins, which crossed the strata, were so much richer than others, that it had become worth the miner's while to incur the expense of its carriage from the top of the hill, whence the ore has been scooped out with great labour, rather than work the more accessible, but poorer rocks which lie lower down. As the workmen, therefore, had followed the rich veins in all their windings, the shafts were very tortuous, and branched off to the right and left wherever the ore was to be found. We observed that every crevice or rent in the rock, of whatever size, was invariably coated with crystals of calcareous spar, or of quartz, but frequently metallic: when the light was thrown into these clefts, it gave them a brilliant appearance, like frost-work. The copper-ore was richest in the quartz veins, but it was found frequently unconnected with them, and combined, in various degrees, with other substances. Having made a careful collection of specimens, we returned to the Asiento, or village of Guasco.

Our fair hostess had in our absence made up a party to visit the Conway, as I had requested her to do, on hearing her say, that no one in the Asiento had been on board of a man-of-war: most of them, in fact, had never been afloat, and some had never even seen a ship in their lives. I gave them dinner on board, and showed them over the ship, with which they expressed themselves much grati-

fied ; but none of them evinced that childish kind of surprise, which people a little, and but a little, acquainted with a subject, are more apt to betray, than those totally ignorant.

The Spaniards, in all things excepting politics, are a deliberate people, and, as their descendants partake of the same cautious spirit, it is not easy, at any time, to excite them to the expression of strong emotion. Being somewhat piqued, therefore, that my friends were so little roused by the novel wonders of a man-of-war, I laid a plan for surprising them, which succeeded completely. After dinner, the party landed, and scattered themselves about in groups on the sunny face of a rock, fronting the ship. It was quite calm, and the water was so smooth, that, although the whole Pacific was open to the west, there was not the least swell ; and only a little scarcely audible ripple broke at our feet. I had given orders that, at a certain hour, about which a breeze from the land might be expected, the sails should be set. Accordingly, at the appointed time, a shrill whistle was heard : this attracted the attention of my Chilian friends to the ship, lying within three hundred yards of the beach. In the next instant, the sailors were seen flying out upon the yards to loose the sails. The ladies, who had never before witnessed such a sight, gave an involuntary scream of terror, lest the seamen should fall ; while the gentlemen shouted with delight and surprise, to witness their dexterity.

Our adieux were most pathetic, although our acquaintance had subsisted not quite thirty hours, and as we sailed away, we could observe through

our glasses that the ladies remained seated on the rocks, like so many deserted Didos, waving their handkerchiefs to us till the night closed in, and we lost sight of one another in the darkness.

CHAPTER XXIX.

COPIAPÓ ANCHORAGE—EARTHQUAKE OF 1819—CITY DESTROYED—OLD MONK IN THE MIDST OF HIS RUINED CONVENT.

WE had some difficulty next day in finding the harbour of Copiapó, which was not distinctly laid down in the plans in our possession. On coming near it, a dangerous line of reefs was discovered, of which no books nor charts made any mention. This circumstance determined me to have the whole bay trigonometrically surveyed, and carefully sounded. As soon, therefore, as the ship was anchored, I sent one of the midshipmen, Mr Henry Foster, an excellent surveyor, on this service. But as it was soon discovered, that two days would be barely sufficient to accomplish this indispensable work, I determined to employ the interval in visiting the town of Copiapó, lying eighteen leagues in the interior.

The gentleman just mentioned has since been promoted to the rank of lieutenant, and accompanied Captain Parry, on his late voyage in 1824, and 1825, as assistant-surveyor. It gives me great pleasure to have a public opportunity of bearing testimony to the talents and knowledge of this rising young officer.

The first thing which arrested our attention, after anchoring, was a curious pile, or large brown stack on the beach, apparently of hewn stones. After we had in vain examined it through our glasses, our Coquimbo friend explained to us that it was a quantity of copper, the cargo of a ship he had ordered to call in a few days. He was well pleased to find his agents had so punctually attended to his directions, especially as they had no idea of his intending to visit the coast. Presently we saw a man riding along the edge of the cliff above the beach on which the copper was placed, and on sending a boat for him, he proved to be the person in charge of the copper, much delighted that his employer had found him at his post. He was instantly despatched into the country to get horses for our journey next day.

Early on the 23d of November we set off for Copiapó. Besides the never-failing motive of curiosity to see this place, merely because it was new, we felt most anxious to witness the effects of the great earthquake of April 1819; and, if our time would permit, to visit the silver mines in the mountains near the town. Our party consisted of three passengers from Coquimbo, and three of the officers of the Conway, including myself. The first part of the road lay along a hard level surface, chiefly rock, at some places covered with a thin soil. We then entered a broad valley, the sides of which were formed entirely of water-worn stones and gravel, covered by a stratum or crust several yards thick, of a rock composed entirely of pieces of broken shells, stretching, as far as we could discover, over the whole country bordering on the sea. The valley was three or four miles across, and bore

every appearance of having been, at some former period, the channel of a mighty river, now shrunk into a scanty rivulet, flowing almost unseen amongst dwarf willows, stunted shrubs, and long rank grass. The soil was completely covered, at every part of the valley, by a layer, several inches thick, of a white powder, since ascertained, by analysis, to be sulphate of soda, or glauber salts. It looked like snow on the ground, an appearance it still retained even when made into roads, and beat down. The dust thrown up by the horses' feet almost choked us, and the day being dreadfully hot, our thirst became excessive, so that we hailed with delight the sight of a stream; but, alas, the water proved to be brine, being contaminated by passing through the salt soil.

The country, except where the stream stole sluggishly along, was quite a desert; but to our surprise, we felt none of that fatigue and depression of spirits, which, in a peculiar degree, had affected every one, when travelling at other places across utterly barren and level wastes. The agreeable distinction between the present and other journeys across sandy countries was remarked by several of the party. We sought to account for it by the circumstance of having constantly in view, though at a great distance, several of the beautiful and towering ridges of the Andes. The horizon, in the east and north, and partially in the south, was bounded by this lofty chain of mountains, which rose one above another with such an endless variety of outline, that the eye was never tired of contemplating them; and although they were as barren as the country we were riding through, the different shades of the air-tints, caused by the dif-

ferent heights and great distances of these mountains, gave a mixture of softness and sublimity to the landscape to which no language can do justice in expression.

At the distance of forty miles from the port, we came to the farm-house of Ramadilla, where the obliging proprietor entreated us to alight, while his people prepared fresh horses and mules, for the remainder of the journey to Copiapó, still four or five leagues off. Shortly after remounting, everything wore a new and more pleasing aspect; for, from the moment of entering the Ramadilla grounds, cultivation and pasture, and abundance of verdure, were seen on all sides. The cause of this change was another little streamlet, the water, however, of which was fresh, gladdening everything through which it passed. We are, in general, so much accustomed to see what is called spontaneous vegetation, that we forget the obligation which the soil lies under to moisture; but in a country without either rain or dew, the case is different, and wherever a stream is found, the debt is gratefully acknowledged.

By the time the sun had set, we became completely bewildered amongst the Lower Andes, and, but for the guide, must soon have lost ourselves. When it became dark, we were left in that mysterious, and rather pleasing state of uncertainty, which belongs peculiarly to night-travelling, in a country totally new.

At Copiapó, our party were kindly received by a most intelligent and gentlemanly person, a native of the Island of Chiloe, on the south coast of Chili.

We rose early next morning, impatient to see the effects of the earthquake, which over night, indeed,

had been partly visible by candle-light, for the house we were in, the only one in this part of the town which had not been thrown down, was cracked and twisted in the most extraordinary manner. It was built of wood, plastered over, and the main uprights having been thrust deep into the ground, the heaving of the earth had wrenched the parts of the building asunder, and without demolishing it altogether, had given it the torn appearance which it still retained. In the Plaza, every house except this single one and a small chapel, was completely destroyed. The walls had tumbled in all directions, some inwards, some outwards, presenting a scene singularly ruinous and melancholy. It was obvious at a glance, that this was the work not of years, but of a cause at once general and rapid in its effects. In a climate such as this, without rain, the footsteps of time fall so very lightly, that it is probable these ruins were much in the same state as on the day when they were cast down, two years and a half before, and will remain in the same state for many years to come. The walls being from three to four feet thick, none of them above twelve feet high, and built of large flat sun-dried bricks, were calculated, it might have been supposed, to withstand the shocks even of an earthquake; yet, notwithstanding their strength, they seem to have been toppled down like so many castles of cards. The little chapel above-mentioned was built by the Jesuits, who had bolstered it up with a set of monstrous buttresses, occupying an area considerably greater than the chapel itself; which, nevertheless, was so twisted about, that the roof had fallen in, and the walls were cracked in all directions. Some houses had been so shaken, that not

a brick retained its original place, yet the walls were standing, though with a most ghost-like appearance; and at such an angle, that, in passing, we were not quite free from apprehension of their falling upon us; indeed, there was hardly a single wall which was not sloping over more or less. In some places the buttresses were shaken down and gone, but the shattered wall was left standing; and in many cases the wall and its supporter had been torn apart from each other, and were inclined in opposite directions. The great church, called La Merced, fell on the 4th of April 1819, one day after the earthquake began, and seven days before the great shock which completely destroyed the town. Its side walls, and part of one end, were left standing in a dislocated and inclined state, and rent from top to bottom; but what was curious, the buttresses, which appear to have been broad and substantial ones, were almost all thrown down. One of them, however, which still remained, was fairly wrenched apart from the building it had been intended to support, the wall touching it at the ground, but standing a yard and a half from it at the top. It appears, therefore, as ought to have been anticipated by the architects of Copiapó, that these supports contribute nothing to the stability of a wall opposed to the shaking of an earthquake: their real use is to resist a lateral thrust outwards, not to act against a vibratory motion of the ground on which they stand. In a situation such as this, constantly exposed to these visitations, the houses ought to be constructed on the principle of a ship, with timber firmly bolted together, and as little as possible connected with the ground. If this were attended to, there need never be the least danger;

for at the worst it is not to be supposed that the motion of the earth can amount in degree to that of the waves of the sea. Instead of adopting some such principle, however, the Copiapónians, by following blindly the rules of architecture in undisturbed situations, exert themselves solely in making deep foundations, massy walls, and ponderous buttresses, devices all adapted, in my opinion, to co-operate with the earthquake in the quick work of destruction. In point of fact, the only houses that had stood the shocks were those built of the lightest materials, and connected in the most superficial manner with the ground. All the rest, with deep foundations and thick walls, being rivetted as it were to the surface, were exposed to the full violence of its movements.

While we were viewing the church of La Merced, one of the holy Fathers of the ruined establishment came into the court, and pointed out the various circumstances, describing how each had happened. He himself was not a bad appendage to the ruin, being nearly as much shattered as his church; a connexion probably not quite accidental; for the wealth and consequence of the priests had fled when their shrine was destroyed; and this worn-out old man was the only remaining monk who chose to abide by the ruins of the edifice, which had sheltered and enriched him for half a century.

CHAPTER XXX.

VISIT TO A SILVER MINE—SUBTERRANEAN POOL OF WATER—RELATIVE VALUE OF COPPER, SILVER, AND GOLD MINES—GOLD MILL—FARTHER NOTICES OF THE EARTHQUAKE—INCREASING TERROR WHICH THIS PHENOMENON INSPIRES ON THE MINDS OF PERSONS FREQUENTLY EXPOSED TO ITS INFLUENCE.

AFTER breakfast we set out to explore a silver mine, amongst the hills at some distance, on the western side of the town. On reaching the height of four or five hundred perpendicular feet above the bottom of the valley, and turning round to look at the ruins we had left, the general effect of the earthquake was more distinctly marked than when viewed from below. Each house had formerly a garden attached to it, surrounded by tall cypresses, many of which were drooping over the ruins, or leaning against one another: but not a house was now to be seen, although the situation of the streets, and quadras or divisions of the town, were distinctly pointed out by the lines of rubbish. It is a remarkable circumstance, that an extensive district of the town called the Chimba, had suffered comparatively nothing, though not a mile and a half from this scene of devastation. Some of the houses at the outskirts of the town were also still standing; which led us to conclude that the shock had been

limited in its operation, by a line of no great breadth. Possibly there may have been a vast rent, or rather a crack in the earth; and the ground on one side of it may have been put into violent motion, while that on the other side, not being within reach of the same disturbing cause, may have remained at rest.

Our road, which lay along the bottom of a ravine, soon carried us beyond the valley, where nothing was to be seen but the vast sea of sandy mountains composing the country. On reaching the summit of the pass, we had the satisfaction to find ourselves on a spot which commanded a free view on both sides to a great distance; but the ground, in every direction, was utterly desert. Our guide took us first across a sandy plain, and then along the sharp ridges of several hills, till he fairly bewildered us amongst the mountains; and every trace was lost of the entrance into this wild labyrinth. At length he led us, by a high, narrow neck of land, to a solitary hill, in the middle of a plain, round which the road turned in a spiral manner, till it reached the mouth of La Santa Clara, a silver mine. Here we dismounted, and prepared for the descent, by taking off our coats and hats, and providing ourselves with candles. As the mine was inclined to the horizon, at an angle of about twenty-five degrees, and its roof, at some places, not above three feet high, it was both difficult and disagreeable to proceed. The seam, which originally contained the silver, had been wrought to a great extent, so that there was left a wide space between two strata of the rock. The surface, fortunately, was irregular, but so worn by the miners' feet, when bearing their load upwards, and so much polished

by their sliding down again, that we found it no easy matter to avoid slipping at once from the top to the bottom. The guide had excited our curiosity by the account of a lake, which, he said, lay at the bottom of one of the great workings ; but in searching for it, he mistook his way, and followed a wrong course, and no lake was found to repay our labour. As he was still confident, however, and declared the next trial would be more successful, we consented to renew the search. After ascending for about a hundred and fifty paces, we went down a second shaft, the inclination of which was so great, as to make the adventure rather more hazardous than the first. At length, after innumerable windings and turnings, when nearly exhausted with the heat, which was excessive, we reached a little cave, or nook, excavated in the solid rock, with a little mysterious-looking lake in the middle. We tasted the water, which was intensely salt and acrid, but had unfortunately provided no means of carrying away any of it. A gentleman at Copiapó, who said he had examined it, told us afterwards that it contained antimony, sulphur, arsenic, and soda, in solution, besides a little copper and silver. I cannot pretend to answer for the accuracy of this analysis. The margin of the lake was fringed with crystals of salt ; the roof and sides also of the cave sparkled with spangles sublimed from the liquid. Every crevice and cavity in the rock, of which there were great numbers, was lined with nests of crystals of quartz and calcareous spar.

The silver in this mine is mostly in union with limestone ; but much rich ore is also found in quartz veins traversing the strata. The miners were not at work, but we examined the spots where they

had been recently quarrying, and broke specimens from many different parts. There is no machinery of any sort in these mines ; and all the ore, when wrought, is carried to the open air on the backs of labourers. Gunpowder, indeed, is used to blast the rock ; but, with this exception, the whole business of the mine is conducted by manual labour alone. After the ore reaches the surface, mules are employed to carry it to the valley of Copiapó, where it is extricated from the ore either by amalgamation or by smelting, according to circumstances.

By counting the number of paces, and considering the inclination of the shaft, it was calculated, that we had descended in this mine two hundred and eighty-five perpendicular feet. It was reckoned one of the richest in the neighbourhood, until its depth became so great, that the expense of raising the ore to the surface overbalanced its value when brought there, and made it more profitable to work poorer ores of more easy access. It is said there is an intention of running a horizontal shaft from the side of the mountain into the mine, at the level of the lake, in order to save the upward carriage ; but it is questionable if there be yet spirit enough in the country for such an undertaking. There is no saying, indeed, what British capital and enterprise, aided by machinery, may effect, especially as there are but few silver mines wrought at present in Chili ; and the returns might therefore be considerable.

After dinner, on our return to the town, we sallied forth to take another survey of the ruins, which we never tired of looking at ; for scarcely any two of the houses were shaken down exactly in the same manner : but it was no less interesting to

mark the effect of the earthquake on the minds of the inhabitants. Many of the most wealthy and industrious had removed to other quarters; some from apprehension of a recurrence of the evil, and some from the natural effect of the destruction of property, which, for a long time, seemed likely to paralyse active exertion. One very serious consequence of the earthquake has been the diminution in the only stream of water by which the town is supplied, and to this cause we must ascribe great part of the emigration. As the population decreased, many rich mines were of course abandoned.

But such, fortunately, is the tendency of man to trust rather to his chance of future good fortune, than to be influenced by experience, however fatal, that the people were busily engaged in rebuilding their houses, and again working their mines, as if nothing had happened. Copiapó has been destroyed about once every twenty-three years; the latest well-authenticated periods of these catastrophes being 1773, 1796, and 1819.

In the course of our walk, we discovered near the stream a grove of trees, in the centre of which stood a neatly-built cottage, surrounded by farm-offices, and garden, with everything in the most rural style, and in the centre of all, a gold mill, which, though characteristic enough of Copiapó, certainly looked somewhat out of place, in a court-yard. This establishment belonged to a man who had been making a handsome fortune by a copper mine, till, unfortunately for the proprietor, it gradually degenerated into a mine of gold: from that moment the tide of his fortune turned, and ever since has been on the ebb. This, which at first looks a little paradoxical, is precisely what might be expected.

The scarcity of gold, the uncertainty of its extent in any given situation, and the consequent great cost of production, are the circumstances which, while they give it so high an exchangeable value, render mining speculations in gold, invariably hazardous. On the other hand, copper exists in great plenty, and is easily wrought. In these countries, therefore, it has become a common saying, that a diligent man who works a copper mine is sure to gain; that he who opens one of silver may either gain or lose; but that if the mine be of gold, he will certainly be ruined.

The gold mill which we examined, consisted of an upright shaft, or spindle, the lower end of which was fixed to a horizontal water-wheel, working in a sunken water-course; this gave a rotatory motion to the spindle, which passed through the centre of a large circular trough on the ground. In this trough a millstone was carried round upon its edge, on a horizontal axis projecting from the spindle. Small pieces of the ore were thrown into the trough, which was kept full of water by a constant small stream; and when the machine was put in motion, the stone went rapidly round, crushing and grinding the ore under the water.

As soon as the whole has been reduced, by this process of trituration, to a fine mud, quicksilver is added, and by its union with the detached particles of gold, an amalgam is formed. This process is said to be quickened by the agitation of the water, and the friction of the millstone. The water is allowed to trickle off by a nick cut in the edge of the trough, and is received in long wooden channels, covered with coarse cloth, the folds and irregular parts of which catch any stray portions of

gold, or of the amalgam, which the agitation of the water may have thrown out of the trough. When all the gold is supposed to be combined with the quicksilver, the water is removed, and the amalgam being exposed to heat in vessels adapted to the purpose, the quicksilver is distilled off, and the gold remains behind in a pure state.

After passing a considerable time at the gold mill, we strolled along the face of the hills, which are indented in many places by copper mines, or rather quarries, for the rock is here so rich in ores of that metal, that it is broken from the surface, and smelted at once.

It was interesting to notice how constantly the earthquake occupied all people's thoughts at this place, however much they might seem to be engrossed by other objects. In the early part of the evening, an English gentleman, resident at Copiapó, invited me to visit a family of his acquaintance living in the undestroyed suburb, called the Chimba. Though almost worn out with the day's work, I was tempted to go, by the promise of being presented to the handsomest young woman in Chili. We had come here, it is true, with our thoughts full of mines, deserts, and earthquakes; or, if we had originally any thoughts of mixing with society, the desolate appearance of the town had chased them away: nevertheless, we could not refuse to visit a lady with such pretensions. We found her very pretty and agreeable; but what entertained us particularly was her vehement desire to have a wider field for the display of her charms, which, to do the secluded beauty no more than justice, were of a very high order, even in this land of fascination. The accounts she had

heard from others of the fashionable world of Santiago, and of Coquimbo, had so completely turned her head, that earthquakes had ceased to make the usual impression. "I see," cried she, "other people running out of their houses, full of terror, beating their breasts and imploring mércy; and decency, of course, obliges me to do the same; but I feel no alarm—my thoughts are all at Coquimbo. How can my uncle be so unkind as not to repeat his invitation!" We consoled the pretty damsel as well as we could, and as she had spoken of earthquakes, asked her if there had been one lately? "No," she answered, "not for some time—I really do not think I have felt one myself for three days—somebody said there was one last night, but I knew nothing of it—I am tired of these earthquakes—and would never think of them again if I were once at dear Coquimbo!"

On putting the same question to another person present, he said, they had not experienced one since April; meaning, as I discovered, April 1819, two years and a half before; not conceiving we could possibly take any interest in such petty shocks as would not demolish a town. An old man in company, however, seeing that we had been misunderstood, explained that it was a long time since they had felt a shock of any consequence; and upon our pressing him closely to say what he considered a long time, replied, at least a month.

On returning to the town we were gratified by meeting two agreeable and intelligent men, whom our considerate host had invited to meet us. They were most willing to exchange their local information for our news about the rest of the world, with which they appeared to have extremely little in-

tercourse. We soon engaged them in conversation about the great earthquake. It began, they said, between eight and nine in the morning of the 3d of April 1819, and continued with gentle shocks during that day and the next. At four in the afternoon of the 4th, there came a violent shock, which produced a waving or rolling motion in the ground, like that of a ship at sea, which lasted for two minutes. In every instance these shocks were preceded by a loud rolling noise, compared by one person to the echo of thunder amongst the hills; and by another to the roar of a subterranean torrent, carrying along an enormous mass of rocks and stones. Every person spoke of this sound with an expression of the greatest horror. One of the gentlemen said, it was "Espantoso!" (frightful.) "Yes," added the other, shuddering at the recollection, "horroroso!"

Something peculiar in the shocks of the 4th of April had excited more than ordinary fear in the minds of the inhabitants, and, at a particular moment, no one could tell distinctly why, they all rushed in a body to the great church called La Merced. Our informant happened to be standing near this church at the time, and thinking, from appearances, it would probably soon fall, called out loudly to the people not to enter, but rather to bring the images into the streets, where their intercession would prove equally efficacious. Fortunately, the prior of the church, who was just entering the porch, saw the value of this advice, and seconded it by his authority; ordering the people to remain without, and desiring those who had already entered to bring the images instantly into the street. The last man had scarcely crossed the threshold

with an image of San Antonio on his shoulders, when a shock came, which, in the twinkling of an eye, shook down the entire roof and one end of the church, leaving it in the state already described. Had not the people been thus judiciously detained in the open air by our friend's presence of mind, almost the whole population of Copiapó must have perished.

One is apt, on such occasions, when attended with disastrous consequences, to blame the folly and imprudence of people exposed to sudden danger. But it ought to be remembered, that by far the greater part of mankind are not trained to habits of quick decision and presence of mind; and, in fact, have practically little need of any such discipline, as occasions of danger and difficulty are rare. When accidents, however, arise, and our safety depends entirely upon prompt and vigorous measures, this defect in mental training becomes very conspicuous, and often proves fatal. The course to be followed is, in most cases, extremely simple, and all that is wanted, is the habit of viewing danger with composure, and learning that it is most securely encountered by steadiness.

After the fall of La Merced, and their providential escape, the inhabitants fled to the neighbouring hills, leaving only one or two fool-hardy people who chose to remain. Amongst these was a German, who, as he told me himself, divided his time in the Plaza between taking notes of the various passing phenomena, and drinking drams of aguar-diente, the spirits of the country. Slight shocks occasionally succeeded that on the 4th, but it was not till the 11th of April, seven days after the fall of the church, that the formidable tremor occurred,

which, in an instant, laid the whole town in ruins. It was accompanied as usual by a subterranean sound, which, though at first of a low tone, gradually swelled to a clear and dreadful loudness, of which no one, I observed, even at this distance of time, could speak without an involuntary shudder.

After the first great shock, which levelled the town, the ground continued in motion for seven minutes, sometimes rising and falling, but more frequently vibrating backwards and forwards with great rapidity; it then became still for some minutes, then oscillated again, and so on, without longer intermission than a quarter of an hour at any one time, for several days. The earthquake then abated a little; the intervals became longer, and the shocks not quite so violent: but it was not till six months afterwards that it could be said to be entirely over; for the earth during that period was never long steady, and the frightful noises from beneath constantly portended fresh calamities.

While listening to these interesting descriptions, we were much struck with the occasional introduction of minute characteristic circumstances, which, however trivial in themselves, served to stamp the authenticity of the whole. One of the party, for instance, was describing the effect of a severe shock, which, he said, happened at four o'clock in the afternoon. "Oh no," said another, "it was later, I assure you."—"Indeed it was not," answered the first; "don't you remember we were playing at bowls at the time, and when the sound was heard I stopped playing, and you called out to me to look what o'clock it was; I took out my watch, and told you it was past four?" Upon another occasion, our host said, "I was just going

to look what the hour was, at which one of those sounds was first heard, when my attention was diverted from the watch by a hideous scream of terror from a person near me. He was such a little insignificant wretch, that I had not conceived so loud a yell could possibly have come from his puny body; and so we all forgot the shock in quizzing this little manikin," (hombrecito.) "Nevertheless," added he, gravely, "although I am not a man to cry out and play the fool on such occasions, like my little friend, yet I do fairly own that these earthquakes are very awful things; and, indeed, must be felt, to be understood in their true extent. Before you hear the sound," he continued, "or, at least, are fully conscious of hearing it, you are made sensible, I do not well know how, that something uncommon is going to happen: everything seems to change colour; your thoughts are chained immovably down; the whole world appears to be in disorder; all nature looks different from what it was wont to do; you feel quite subdued and overwhelmed by some invisible power, beyond human control or comprehension. Then comes the horrible sound, distinctly heard; and, immediately, the solid earth is all in motion, waving to and fro, like the surface of the sea. Depend upon it, sir, a severe earthquake is enough to shake the firmest mind. Custom enables a man of sense to restrain the expression of his alarm; but no custom can teach any one to witness such earthquakes without the deepest emotion of terror."

CHAPTER XXXI.

ACCOUNT OF THE MINING SYSTEM OF CHILI—EFFECT OF THE REVOLUTION IN THE PRICES OF GOODS—DETAILS OF A MINING SPECULATION—FALLACIES RESPECTING THE PROFITS OF SUCH ENTERPRISES—ADVANTAGES OF UNRESTRICTED COMMERCE.

NOTWITHSTANDING the severe fatigues of the day before, our party was up and bustling about by half past five in the morning, making preparations to return to the Port. Our obliging host accompanied us for some leagues, and then returned to his mines and his earthquakes, while we hurried on, to make the most of the coolness of the morning. In these countries, the day always breaks with a delicious freshness, which the traveller soon learns to appreciate; for even where there is no dew to moisten the ground, the air is always pleasant at this hour, and the long shadows of the eastern hills which stretch across the valleys, not only protect him, for a time, from the intense heat, but shield him from the universal glare, which, in the middle of the day, is so intolerable.

On reaching the ship, we found Mr Foster's survey just completed, and at sunset weighed, and

steered along the coast with a gentle breeze from the southward.

The following account of the mining system in Chili is principally derived from a gentleman long resident in the heart of that particular part of the country; and as we had many other sources of information to fill up and check his statement, its general accuracy may, I think, be depended upon.

Copper, silver, and gold, are produced from the mines in the district we had just visited; the least valuable of these metals being the staple commodity of the country. There are many hundreds of copper mines wrought in Chili; but not more than one of gold for fifty of copper; and probably not above one of silver for fifteen of copper.

The average produce of copper in one year has lately risen to more than sixty thousand quintals, of one hundred Spanish pounds each. The greatest part of this goes to Calcutta, a small quantity to China, and the rest to the United States, and to Europe.

The annual export of silver may be stated at twenty thousand marcs, at eight dollars per marc; but this quantity has varied considerably of late years. Of gold, it is difficult to speak accurately, but its export is certainly very trifling, and of late has been falling off, in consequence of the mining capital finding more advantageous employment in working copper.

This subject is rendered more than commonly interesting at this moment, from its affording some valuable examples of the practical operation of free trade. Three important commercial advantages have taken place, in consequence of the removal of restrictions, and other reforms consequent upon

the revolution. -The enlargement of the market caused by opening a trade with all the world;—the increased price of copper caused by fair competition;—and the diminution in the cost of its production, owing to the fall in the price of every article used in the mines.

To place this in a striking point of view, I subjoin a table of the prices before and after the Revolution:—

COMPARATIVE TABLE OF PRICES.

ARTICLES.	Former Prices in Dollars.	Prices in 1821, in Dollars.
Copper per quintal, of 100 Spanish lbs.	6½ to 7	12 to 13
* Steel do.	50	16
* Iron do.	25	8
* Wheat per fanega of 150 lbs.	5	2½
* Beans do.	6	5
* Jerked Beef, per quintal of 100 lbs.	10	7 to 7½
* Grassa, or soft fat, per botica of 50 lbs.	8	6 to 6½
* Wine and spirits	No change as	yet (1821)
Fine cloth, per yard	23	12
* Coarse cloth, per do.	5	3
Printed cotton goods, do.	18 to 24 reals	2½ to 3 reals
Velveteens, do.	26 reals	2 do.
Crockery, per crate	350	40
Hardware,	300	100
Glass,	200	100

The articles marked with an asterisk are used in the mines.

The money price of labour in the mines had not yet risen, but it is evident that it must rise as the country improves in civilization, and as more capital is employed in bringing new mines into work; and, in the meantime, the comforts of the labour

ers have been materially increased by the diminution in the price of food, and all articles of consumption.

The above table shows the prices at Santiago and Valparaiso, but the present master-miners enjoy a still further advantage in the cheaper, and, what is of still greater consequence, the more certain supply of all articles necessary in the mines: formerly, every requisite, such as steel, iron, clothing, and food, was made to pass through Coquimbo, under the mistaken idea of benefiting that town, at the ruinous expense of the miners. This abuse is now removed, and the ships destined to carry away the copper, having unloaded their cargoes of goods for the Chilian market, at Valparaiso, proceed in ballast to the ports on the mining coast, and carry with them, for a very small freight, everything required by the miners; so that the heavy expense of land-carriage is entirely saved. The practical advantage, both public and private, produced by this change from restrictions, protections, and monopolies, has been immediate and obvious; and the instance is the more worthy of remark, as it is seldom that a commercial question in political economy is sufficiently disentangled from collateral difficulties, to admit the distinct exhibition of the theoretical principles by which the operation is regulated.

There are two principal persons concerned in almost every mine, the actual Proprietor and the Habilitador. The first, who is also the miner, lives at his hacienda, or farm, generally in the neighbourhood, and attends to the details of working and smelting the ore. The habilitador resides at a distance, generally at one of the three principal

sea-port towns, Coquimbo, Guasco, or Copiapó : he is the mining capitalist, and he has the character of a diligent, saving man of business, very different in all his habits from the miner, who is commonly an extravagant and improvident person. The word *Habilitador* might, if there were such a word, be translated *Enabler*, as it is by means of his capital that the miner is enabled to proceed with the work.

The proprietor of a mine usually tills his own ground, on the banks of one of the few streams which traverse this desolate country. His farm supplies vegetables, and sometimes stock, for the subsistence of the miners. The smelting-house is also built on his farm, and the ore is brought to his door on mules. These farmers rarely undertake to work a mine with their own unassisted capital : they are seldom, indeed, sufficiently wealthy ; and when they are so, it is not found, in the long-run, so advantageous a method as sharing the transaction with an *habilitador*, who takes charge of the commercial part of the business. Sometimes, however, the owner makes the attempt to work his mine single-handed, in which he usually fails. But to elucidate the subject fully, I shall give the details of a case, which involves most of the varieties, and upon which I happen to possess exact information.

A farmer, resident in the *Asiento* of Guasco, with whom I conversed on the subject, told me that he had opened a copper mine about eighteen months previous to our visit. He then possessed some capital, and a small farm near the river, and, upon the whole, was doing very well ; but he had set his heart upon a larger and more fertile property, lying about a league higher up the stream. De-

luded by the hope of soon realizing a sufficient sum of money to purchase this piece of ground, he rashly undertook to work the mine himself ; but he miscalculated his means, and expended all his capital, before any adequate returns had come in. His mine, however, was rich and promising, and he had raised a considerable mass of ore to the surface ; but he had no money to build furnaces, or to purchase fuel, and his workmen became clamorous for their wages. In short, the working of the mine was brought to a stand, and utter ruin stared him in the face. When things had reached this stage, one of these cunning and wealthy habilitadors, who had been all the while watching these proceedings with inward satisfaction, stepped forward and offered to habilitate the mine, as it is called. The bargain he proposed, and which the wretched miner had no alternative but to accept, was, that the habilitador should pay the workmen their wages, feed and clothe them, and provide tools, and all other articles necessary for working the ore ; he undertook, besides, to build smelting-furnaces, and purchase fuel, and occasionally to supply the miner with money for his subsistence. In repayment for the suns advanced on these different accounts, he required that the whole of the copper from the mine should be delivered to him at a fixed price, namely, eight dollars per quintal, until the entire debt incurred by the outlays should be discharged. The miner endeavoured to stipulate for his copper being taken off his hand at a higher rate than eight dollars, foreseeing that at such a low price his debt would never be liquidated. He was also well aware that, in consequence of the increased trade of the country, the price of

copper had of late years been nearly doubled, and he naturally felt entitled to share more equally in this advantage. But the habilitador, who was not in want of money, was in no haste to close the bargain, and was deaf to this reasoning: at length, the poor miner, rather than sell his little farm and become a beggar, agreed to the hard terms offered him.

The enterprise being now quickened by the habilitador's money, and the mine again in action, copper was produced in abundance, all of which was delivered to the capitalist, who lost no time in sending it to Guasco, where he sold it for twelve or thirteen dollars per quintal, clearing thereby, at once, four or five dollars upon every eight of expenditure. But his gains did not stop here; for, as he had to provide the miners with food, clothing, and tools, he made his own charges for these, which, being a capitalist, he could afford to purchase in wholesale, while he took care to distribute them at very advanced retail prices at the mine. In the payment of the workmens' wages, he also contrived to gain materially. By established regulations, it is settled, that for every pair of workmen, or what is called a Bareta, the habilitador is entitled to charge a specific sum of forty-five dollars per month, that is, sixteen for wages, and twenty-nine for clothing and food. The habilitador paid the bareta honestly enough their sixteen dollars; ten to the upper workman, who is called the Baretero, and six to the other, the Apire, who is a mere carrier: but he charged twenty-nine dollars more in his account, as he was entitled to do, against the miner for clothing and other supplies, to each bareta, although it was notorious that

the real cost for these articles always came to much less than that sum.

Thus the poor miner went on, producing copper, solely for the benefit of the *habilitador*, without the least diminution in his debt, and without any prospect of ever realizing money enough to make his wished-for purchase of the large farm. The other, indeed, was willing to advance him small sums of money, to prevent his sinking into utter despair, and abandoning the mine; but he had the mortification of feeling, that, for every eight dollars he borrowed, he was bound to pay back copper, which the *habilitador* sold for eleven or twelve, while the current expenses of the mine were every day involving him deeper and deeper; and, finally, reducing him to mere dependence on the will of the capitalist.

This, and similar transactions, where the *habilitador's* price is about eight dollars, refer to a recent period only; that is, since the price of copper has risen, in consequence of the increased commercial intercourse, which, in the first instance, had been forced upon South America, in spite of all the Spanish regulations to the contrary; and was afterwards, to a certain extent, sanctioned by the Government. Antecedent to that period, when the Spanish authority was absolute, and the prices were as stated in the table at page 37, the *habilitadores* made bargains, proportionably profitable to themselves and hard upon the miners.

The liberation of Chili, and the consequent establishment of English and North American mercantile houses, have wrought a great change in the whole system; as will be seen by stating what actually took place in the instance described above;

and this example, with various modifications, immaterial to the general principle, will serve to explain the manner in which a great majority of all the mines are now managed in Chili.

An English merchant, who had resided long enough at Coquimbo, and other parts of Chili, to become well acquainted with the mining districts, and with the personal character of most of the miners, happened to hear of the situation to which the farmer, above mentioned, had been reduced; and, knowing him to be an honest and hard-working man, inquired into the details of his case. It appeared that his debt to the *habilitador* was eight thousand dollars, and that there was ore enough at the surface to smelt into a thousand quintals; which, at the stipulated rate of eight dollars per quintal, would be just sufficient to redeem the debt. But the miner had no funds to defray the cost of this process, or the current expenses of the mine.

The English merchant, upon hearing how the matter stood, offered to free him from his embarrassment, and to conclude a bargain far more advantageous to him. In the first place, he offered to lend the miner a thousand quintals of copper, to be delivered at Guasco to the *habilitador*, whose claim upon the mine would be thus annihilated. He next agreed to purchase the farm which the miner had so long wished for, and at once to put him in possession of it. He then proposed, not to *habilitate* the mine in the usual way, but to lend money to the miner, that he himself might pay the workmen, and be the purveyor for his mine; instead of having an account kept against him for these disbursements. Finally, he was willing to take the

copper off the miner's hands at eleven dollars per quintal, instead of eight.

The miner was, of course, delighted with these terms, and readily adopted them, as he gained immediately several material advantages. He got rid of the oppression of the *habilitador*; he accomplished the great object of his exertions, the possession of the large farm; he secured a high price for all his copper; and, what he valued more, probably, than all the rest, he had the satisfaction of providing the mine himself, and was saved from the mortifying conviction of being cheated at every stage of the transaction.

The moment the bargain was concluded, the new farm was bought and entered upon; the smelting went on; the miner soon paid back the thousand quintals he had borrowed; the miners were set to work, to raise some metal to the surface; so that, at the end of five months, enough of copper had been delivered to discharge two-thirds of the original debt, including the purchase-money of the farm. On balancing accounts, however, it appeared that the farmer was still nine thousand dollars in debt to the English merchant, owing to fresh advances made to the mine. At the time I visited the spot, he was still considerably in arrears, but was nevertheless perfectly contented; and so also was the capitalist. The miner received what he considered a fair price for his labour, and the merchant was satisfied with the profit which he realized; for although he purchased copper at eleven dollars, and sold it for twelve or thirteen, he felt also certain of having a complete command of all the copper of the mine in question as long as he

pleased, since it was highly improbable that the miner could ever clear off his debt.

There is a fallacy in the reasonings of many people, even on the spot, as to the extent of mining profits, which arises, probably, out of the prevalent misconceptions respecting the nature of money; or, which is the same thing, the true use of the precious metals, considered as wealth. In consequence of great gains being occasionally made by mining, it is erroneously assumed, that the returns from capital so employed are likely to be, upon the whole, greater than from that applied to agriculture, for instance, or to commerce; and many ruinous speculations have been entered into, solely from omitting to take into account the multiplicity of failures, which balance the casual successes, and necessarily reduce the profits to the ordinary level. Even, however, if this uncertainty were not characteristic and inherent in the nature of mining, still, like every other branch of industry, it could not long continue to yield extraordinary profits; since, if capital were more productively bestowed on mines than in other ways, it would be speedily withdrawn from those other employments, and applied to mining speculations, until competition had lowered the rate of profits to the usual standard. This being inevitably the case, now that all things are left to find their natural place, it follows, whatever view we take, that a miner, who borrows the capital of others to enable him to proceed with his speculations, is situated precisely as a farmer or merchant, who incurs debt to carry on his business. And although there be a sort of imaginary wealth attaching to the idea of a mine, the proprietor will undoubtedly find just as much difficulty in shaking off the incum-

branches of debt as either the merchant or the farmer. In practice, however, this leads to no bad effect ; but, on the contrary, as might easily be shown, the present state of the mines in Chili is, perhaps, upon the whole, the most favourable for the production of national wealth. This reasoning is evidently inapplicable to former times, when everything was regulated by monopolies ; the tendency of which was to bribe, at a great cost, the capital from its natural channel, into directions which, if left to itself, it never could have taken ; and from which, consequently, the returns would inevitably be less, by the amount of the bribe which the community had to pay to a few interested individuals.

The English capitalist, in the case described, might, of course, have made a bargain apparently better, and agreed, for example, not to receive the copper for more than nine or ten dollars, instead of eleven : but his principal object was to set competition at defiance, and, by concluding such bargains only as produced moderate profits, secure the whole produce of the mine, by making it permanently the miner's interest to go along with him. Such a principle is quite foreign to the practice and ideas of the native *habilitador*, who, notwithstanding the great alteration both in the extent and advantages of the trade, cannot bring himself to submit to smaller, though more certain profits. In process of time, he must, no doubt, consent to act as he has already been obliged to do in part ; but in the meanwhile, the more active foreign capitalist has stepped in and displaced him.

The advantage which the merchant derives from securing, in this manner, the constant produce of the numerous mines similarly at his command, con-

sists in his being enabled to act with confidence as an agent for the commercial houses of the capital. The manner in which this branch of trade is carried on is as follows :—Goods are sent from England or Calcutta, adapted to the Chilian market, and consigned to British or American merchants resident in Santiago. The returns for these goods can be made at present only in bills, in specie, or in copper. If this last be decided upon, the consignee at Santiago writes to his correspondent at Coquimbo, the British merchant alluded to above, telling him, that on such a day a ship will call on the coast for so many quintals of copper, and authorizing him to purchase at a certain price, and to draw bills upon Santiago to the required amount. All that the Coquimbo merchant has to attend to is, to see that a sufficient stock of copper be ready by the appointed day. To enable him to do this at all times without risk of failure, it is essential he should possess the complete command of a great many mines. His method of acquiring such influence has been detailed ; but to carry his plan into effect on an extensive scale, he must have capital to work with ; and this is accordingly furnished by the various credits which the Santiago merchants supply him with from time to time.

Thus, by a beautiful system of interchange of advantages, the benefits of unrestricted commerce are rendered very apparent. The European or East Indian merchant receives a valuable return cargo for his goods ; the population of Chili are supplied at low prices with articles which they want, but cannot produce at home ; the consignee having made the required remittance, and charged his commission, makes a further profit on the retail

distribution of the imported cargo ; the agent at Coquimbo, besides gaining by the sale of his copper, acquired in the manner already described, gets a per centage on the transaction ; and, lastly, the produce of the mine is enhanced in value to its owner, while the expenses of all his operations are reduced.

Such manifest advantages have naturally directed much capital to this productive source of wealth ; and fresh mines are opening in all parts of the district, under the genial influence of the new system. As the increased supply may be expected to lower the price of copper, a more extensive use of the article will inevitably follow, which will be succeeded, in due time, by a greater demand. All this, however, it is important to observe, is new to South America ; and is to be attributed solely to the recent changes. Its successful progress, it is extremely important to remark, has also been essentially promoted by the good sense of the Chilian government, who have left every branch of the subject entirely to itself

CHAPTER XXXII.

PERU.

RETURN TO LIMA—FIRST APPEARANCE OF THE INDEPENDENT FLAG ON THE FORTRESS OF CALLAO—EFFECT OF THE CHANGE OF MATTERS ON THE INHABITANTS OF LIMA—THEIR SENTIMENTS RESPECTING FREE TRADE AND INDEPENDENCE—MUMMY OF A PERUVIAN INCA.

OUR stay at Lima, upon this occasion, was short, but very interesting. We arrived on the 9th, and sailed on the 17th, of December 1821. In the interval of four months, which had elapsed since we left Peru, the most remarkable change had taken place in the aspect of affairs. The flag of Spain had been struck on the castle of Callao; and in its place was displayed the standard of Independence. The harbour, which we had left blockaded by an enemy, was now open and free to all the world; and, instead of containing merely a few dismantled ships of war, and half a dozen empty merchant-vessels, was crowded with ships unloading rich cargoes; while the bay, to the distance of a mile from the harbour, was covered with others, waiting for room to land their merchandise. On shore all was bustle and activity. The people had no longer leisure for jealousy; and, so far from viewing us with hatred and distrust, hailed us as friends; and, for the first time, we landed at Callao without appre-

bension of insult. The officers of the Chilian expedition, whose appearance, formerly, would have created a sanguinary tumult, were now the most important and popular persons in the place, living on perfectly friendly terms with the very people whom we well remembered to have known their bitterest, and, as they swore, their irreconcilable foes. There was nothing new, indeed, in this degree of political versatility ; but it was still curious to witness the facility and total unconcern with which the sentiments of a whole town can be reversed, when it suits their interest. As the population of Callao depend for subsistence entirely upon the port being open, their anger had formerly been strongly excited against the Chilians who had shut it up, and thereby brought want of employment, and consequent distress, upon the people. But now the Independent party had not only restored the business of the port, but augmented it much beyond its former extent. The inhabitants of Callao, therefore, whose interest alone, quite independent of any speculative opinions, regulated their political feelings, were in raptures with the new order of things.

In the capital also a great change was visible. The times, indeed, were still far too unsettled to admit of ease, or of confidence, in the society. The ancient masters of the city were gone ; its old government overturned ; its institutions, and many of its customs, were changed ; but, as yet, nothing lasting had been substituted ; and, as circumstances were varying every hour, no new habits had as yet been confirmed. In appearance, also, everything was different. Instead of the formal, dilatory style of doing business, that prevailed in former days, all

was decision and activity; even the stir in the streets looked to our eyes quite out of Peruvian character: the shops were filled with British manufactured goods; the pavement was thronged with busy merchants of all nations, to the exclusion of those groups of indolent Spaniards, who, with cigars in their mouths, and wrapped in their cloaks, were wont, in bygone days, to let the world move on at its own pleasure, careless what turned up, so that it cost them no trouble. The population appeared to be increased in a wonderful degree; and the loaded carts and mules actually blocked up the thoroughfares.

While viewing all this, the probable result becomes a curious but intricate subject for speculation. That eventual good must spring out of the increased knowledge and power of free action which the recent changes have introduced, there could be no sort of doubt; but in what manner it might be modified, and when or how brought about; into what state, in short, the government might settle at last, could not be predicted. In the midst, however, of the great confusion and uncertainty which prevailed in these countries, it was satisfactory to think, that, in every variety of aspect under which they could be viewed, there was none in which the advantages of free trade were not likely to be insisted on by the people; who acquired, with wonderful quickness, a clear and comprehensive view of the subject, as distinguished from the ancient system of restriction. There was no need of time, indeed, or of education, to teach people of every class the direct benefits of having a large and constant supply of useful merchandise at low prices; and although the means of purchase, and the dispo-

sition to spend capital in that way, must be greatly increased by the establishment of a steady government; yet, even in the most ill-regulated and unsettled state of public affairs, there will always be found, in those countries, extensive means to make adequate commercial returns. It is not, as I conceive, any want of power to pay for imported goods that is to be apprehended; but rather the absence of those wants, tastes, and habits, the hope of gratifying which is, in every country, the surest stimulus to industry. The mining and agricultural resources of South America are very great, as we already know, by what they produced even when under the unfavourable circumstances of the ancient system; and, from all we have seen of late years, it is highly improbable, that, with the worst form of government likely to be established, these resources will be less productive than heretofore. The desire to enjoy the luxuries and comforts, now, for the first time, placed within reach of the inhabitants, is probably the feeling most generally diffused amongst them, and would be the least easily controlled, or taken away. Perhaps the wish for independence was, at the moment I speak of, a stronger emotion, but it was not yet so extensively felt as the other. To the great mass of the people, indeed, abstract political ideas, standing alone, are quite unintelligible; but, when associated with the practical advantages alluded to, they acquire a distinctness unattainable by any other means. Had the Spaniards, some years ago, been judicious enough to concede a free commerce to the colonies, there can be little doubt, that, although they would, by that means, have involuntarily sown the seeds of future political freedom, by giving the in-

habitants a foretaste of its enjoyments, they might have put off what they considered the evil day to a much later period ; and the cry for Independence, now so loud and irresistible, might perhaps not have yet been heard in South America.

It may be remembered, that, when we left Peru on the 10th of August 1821, General San Martin had entered Lima and declared himself Protector, but that Callao still held out, and, as long as this was the case, the Independent cause remained in imminent hazard. San Martin, therefore, employed every means of intrigue to reduce the castle, as he had no military force competent to its regular investment. It was supposed, that, in process of time, he would have succeeded in starving the garrison into terms ; but, on the 10th of September, to the surprise of every one, a large Spanish force from the interior marched past Lima and entered Callao. San Martin drew up his army in front of the capital as the enemy passed, but did not choose to risk an engagement. The Spaniards remained but a few days in Callao, and then retired to the interior for want of provisions, carrying off the treasure which had been deposited in the castle. As they repassed Lima, another opportunity was afforded for attacking them, but San Martin still declined to take advantage of what many of the officers of the army, and some other persons, conceived a most favourable moment for gaining an important advantage over the Royalists. A great outcry was in consequence raised by all parties against him, on account of this apparent apathy ; and his loss of popularity may be said to take its date from that hour.

The fortress of Callao, nevertheless, surrendered

to San Martin a few days afterwards, and with this he declared himself satisfied. Being all along, as he declared, certain of gaining this most important object, by which the independence of the country was to be sealed, he did not conceive it advisable to bring the enemy to action. It is asserted, indeed, by many who were present, that San Martin's army was much superior in numbers to that of Canterac, the Spanish general: but his friends, while they admit this, assert, that it was at the same time necessarily defective in discipline and experience; since more than two-thirds of the original expedition had sunk under the effects of the climate at Huaura, and the new levies consisted of raw troops recently collected from the hills, and the surrounding countries. Canterac's army, on the other hand, consisted entirely of veterans, long exercised in the wars of Upper Peru. San Martin, therefore, thought it better to make sure of the castle, than to risk the whole cause upon the doubtful and irremediable issue of one engagement. With Callao in their possession, and the sea open, the Patriots could never be driven out of Peru. But the slightest military reverse at that moment must at once have turned the tide; the Spaniards would have retaken Lima; and the independence of the country might have been indefinitely retarded.

On the 13th of December, I went to the palace to breakfast with the Protector, and to see a curious mummy, or preserved figure, which had been brought the day before from a Peruvian village to the northward of Lima. The figure was that of a man seated on the ground, with the knees almost touching his chin, the elbows pressed to the sides, and the hands clasping his cheek-bones. The mouth

was half open, exposing a double row of fine teeth. The body, though shrivelled up in a remarkable manner, had all the appearance of a man, the skin being entire except on one shoulder. In the countenance there was an expression of agony very distinctly marked. The tradition with respect to this and other similar bodies is, that, at the time of the conquest, many of the Incas and their families were persecuted to such a degree, that they actually allowed themselves to be buried alive rather than submit to the fate with which the Spaniards threatened them. They have generally been found in the posture above described, in pits dug more than twelve feet deep in the sand; whereas the bodies of persons known to have died a natural death, are invariably discovered in the regular burying-places of the Indians, stretched out at full length. There was seated near the same spot a female figure with a child in her arms. The female had crumbled into dust on exposure to the air, but the child, which was shown to us, was entire. It was wrapped in a cotton cloth woven very neatly, and composed of a variety of brilliant colours, and quite fresh. Parts of the clothes also which the female figure had worn were equally perfect, and the fibres quite strong. These bodies were dug up in a part of the country where rain never falls, and where the sand, consequently, is so perfectly dry as to cause an absorption of moisture so rapid, that putrefaction does not take place.

The male figure was sent to England in the Conway, and is now in the British Museum.

CHAPTER XXXIII.

ARREST OF DON PEDRO ABADIA, AN OLD SPANIARD
—HIS CHARACTER, INFLUENCE, AND REVERSE OF
FORTUNE—FLUCTUATING NATURE OF PUBLIC SEN-
TIMENT EXHIBITED AT THE THEATRE—ORDER OF
THE SUN ESTABLISHED.

ABOUT this time a great sensation was excited among the English, as well as the majority of the inhabitants of Lima, by the arrest and imprisonment of Don Pedro Abadia, an Old Spaniard, who had possessed for many years the highest influence over every class of society; a power which he owed, not so much to his extensive wealth, as to his talents, knowledge, and amiable disposition. As a man of business, he held the highest reputation for probity, liberality, and perseverance. Of his enterprise it will be sufficient to state, that he was the first man in South America who sent to England for steam-engines; and he had actually erected them at one of the mines in the interior, at the distance of several hundred miles from the capital. He was a most accomplished traveller, had visited great part of the world, and spoke and wrote English, and several other European languages, with great facility and correctness. Long before the attack was made on Lima, he had, in vain, exerted all his influence to prevail upon the government to open the port to free trade, which mea-

sure he promised would not only win the confidence and hearty support of the people, but would supply the treasury with means of resisting the enemy, should an invasion be threatened. His advice, however, was overruled by the body of merchants, who possessed a close monopoly of the commerce of Peru, and who could not be induced by any considerations to yield the smallest portion of their exclusive privileges. It signified nothing to prove to them that, without commerce, there could be no receipt of duties, and without receipts, the treasury must remain in a state inadequate to provide means of resistance, when the contest should arise. All such patriotic views were absorbed in the selfishness of a monopoly, which could bear no modification: the united influence of these merchants prevailed, and the measure proposed by this sagacious individual was not adopted till long after it was too late—till Lord Cochrane had blockaded the port, and put an end to commerce in that quarter, and San Martin had landed with his army to instigate the oppressed population to assert their right to the advantages enjoyed by every other part of South America. Thus these bigoted and obstinate people, by acting under the influence of deep-rooted prejudices, and narrow views of the real principles of commerce, not only paved the way for the conquest of the colony, but in the end brought total ruin upon themselves.

But although this able and enlightened Spaniard's influence was unequal to the task of successfully opposing the monopolists, and of affording government the pecuniary means of defending the country, it will easily be understood that a man

of his extensive views, attainments, and wealth, must have possessed great consequence in a society like that of Lima. His influence, indeed, extended from the palace to the lowest cottage: he was the companion and the counsellor of the highest; the comforter and protector of the most wretched; and he was the friend of all strangers, to whom his hospitable doors were always open. Not a mortal in Lima could act without his advice; a word or two with him was essential to every project, great or small; his house was constantly besieged by crowds, and whenever he walked along the streets he was arrested at every corner by supplicants.

With all this real importance, he had not a spark of presumption: in his manners he was simple and unaffected; always in good humour; always saw the bright side of things; made the most of the good, and promised that the bad would mend: his heart was open to every generous impression, and it was impossible not to feel in his presence something of that involuntary, but entire respect, which men pay to taste and excellence in the other sex.

But when San Martin entered Lima, a new order of things took place. That vigorous chief wanted no adviser; he directed everything himself, and with the decision of a soldier, admitted no appeals; he swept whole classes away; established new laws and institutions; and entirely altered the general aspect of society. All strangers were admitted to the port, and were invited to establish themselves in the capital without reserve or restriction; and every one being allowed perfect liberty of action, there was no need of influence or manage-

ment, and our excellent friend's occupation was gone. He was no longer sought for at the palace, nor chased in the streets, nor blockaded in his house. During the siege of Lima, and while its fall was still doubtful, his good-will had been sedulously courted by the emissaries of the Patriots; but when the conquest was complete, his support was of less moment; and the old man, fallen from his high estate, had not forbearance enough to conceal his chagrin; and probably, in conversation, expressed himself indiscreetly, with respect to the reigning powers. Be this as it may, he soon received a severe lesson of prudence. Two friars called upon him one morning, saying, they had come from that part of the country where his mines lay, then occupied by the Spanish forces. They gave out that they were bearers of a message from the Viceroy, that, unless he sent back correct information respecting the state of Lima, his steam-engines and other works would all be destroyed. He endeavoured to get rid of these friars without committing himself so seriously as to give them the intelligence they wanted, but they declared, that they dared not return without something to prove they had actually seen and conversed with him. The old man resisted for a long time; at last, one of them took up a book with his name upon it, and said that it would serve as a voucher, and he unwittingly allowed them to take it away. The friars, who were arrested in the course of the same day, with the book in their possession, were, at first, treated as spies, and it was expected they would be hanged on the spot; but, to the surprise of every one, they were both released, and the Old Spaniard alone imprisoned. This gave rise to the

notion, I believe unfounded, that they had been employed merely to entrap our incautious friend. It was soon known that he was to be tried by a military commission, and alarm and distress spread from one end of Lima to the other: indeed, had the public sentiment been less universally expressed in his favour, he would, in all probability, have been put to death, for the purpose of striking terror into the minds of all the remaining Spaniards, and inducing them to leave the country.

No one suspected this Old Spaniard of such gross folly as giving political or military information to these creatures of the Viceroy; but he very naturally heard with much interest any information they possessed respecting his mines; and in an unguarded moment was probably guilty of the high indiscretion of sending some message to the Spaniards in the interior about his steam-engines and other property.

While he was still in confinement, I went one day to visit him, as soon as the interdict against visitors was removed. He was as cheerful as ever, though well aware of his danger. The room in which he was confined was hung round with old pictures, amongst which was one of St Francis by Velasquez, which he had been trying to purchase from the friars, in the hope that I would accept it, and hang it up in my ship. It was thus that his thoughts were at all times more employed in seeking means to oblige other people, than in attending to his own concerns; an amiable indiscretion, but unsuited to such times, and to which, perhaps, he owed his ruin.

In the end this excellent old man was released from prison, but was ever afterwards watched with

a jealous eye, and when the great persecution commenced against the Spaniards in the beginning of 1822, he was banished, and his property was confiscated. More unmerited misfortune never befell a worthier man, whose greatest crime, indeed, was indiscretion. His is one of the innumerable cases, where we had the means of knowing correctly, how severely and unjustly the effects of the contest were sometimes directed. In ordinary revolutions, most of the cruelty and injustice generally result from lawless and tumultuous assemblages of people; and such is the natural and looked-for consequence of placing power in the hands of inexperienced men. But in South America these political convulsions have, with few exceptions, been kept under a certain degree of control; and have generally been directed by men having reasonable and praise-worthy objects in view. Nevertheless, in every possible case, a revolution is necessarily a great temporary evil; and must always have its full share of crime and sorrow: private feelings, interests, and rights, must on such occasions take their chance of being swept away by the torrent of innovation; and of being sacrificed, sometimes to public policy, and not unfrequently, perhaps, to individual ill-will, avarice, or ambition. That things in South America can ever, by any chance, revert to the melancholy state they formerly were in, is impossible; that they will upon the whole improve, is equally manifest: in the meanwhile, notwithstanding this conviction, it is difficult, when on the spot, to see only the good, and to shut our eyes to the sufferings which the country is exposed to, in its present fiery ordeal.

On the 14th, in the evening, there was a play,

but the people we had been wont to see there before the Revolution were all gone ; and their places occupied by Chilian officers, and by English, American, and French merchants, together with numberless pretty Limenas, a race who smile on all parties alike. The actors were the same, and the play the same, but everything else—dress, manners, language, were different ; even the inveterate custom of smoking in the theatre had been abolished by a public decree.

On Sunday, the 16th of December, the ceremony of instituting the Order of the Sun took place in the palace. San Martin assembled the officers and civilians who were to be admitted members of the order, in one of the oldest halls of the palace. It was a long, narrow, antique room, with a dark wainscotting covered over with gilt ornaments, carved cornices, and fantastic tracery in relief along the roof. The floor was spread with rich Gobelin tapestry ; and on each side was ranged a long line of sofas, and high-backed arm-chairs with gilded knobs, carved work round the arms and feet, and purple velvet covering on the seats. The windows, which were high, narrow, and grated like those of a prison, looked into a large square court thickly planted with oranges, guavas, and other fruit-trees of the country, all kept fresh and cool, by four fountains playing in the angles. Over the tops of the trees, between the steeples of the great convent of San Francisco, could be seen the tops of the Andes capped in clouds. Such was the ancient audience-hall of the Viceroys of Peru.

The Insurgent General, San Martin, as the Spaniards in the bitterness of their disappointment affected to call him, sat at the top of the room, before

an immense mirror, with his ministers on the right and left. The President of the Council, at the other end of the hall, invested the several knights with their ribbons and stars; but the Protector himself administered the obligation on honour, by which they were bound to maintain the dignity of the order, and the independence of the country.

After a very busy and amusing visit of a week, during which our attention was constantly occupied by the multiplicity and variety of the objects in this renovated capital; we sailed, with orders to visit the coast of South America, as far as the Isthmus of Panama; thence to proceed along the shores of Mexico, which are washed by the Pacific, to call at the various ports by the way, and then to return to Peru and Chili.

CHAPTER XXXIV.

SKETCH OF THE STATE OF PERUVIAN POLITICS AT THE CLOSE OF 1821, AND DURING THE YEAR 1822—EXPULSION OF THE SPANIARDS FROM LIMA—MEETING OF THE PERUVIAN CONGRESS—DISASTERS OF THE PATRIOTS—GENERAL SAN MARTIN LEAVES PERU—EXPLANATION OF HIS VIEWS, AND REMARKS ON HIS CHARACTER AND CONDUCT.

CIRCUMSTANCES occurred to prevent the completion of this plan, and to render it necessary for me to repass Cape Horn, without again visiting the western coast. I cannot, therefore, from personal observation, or from inquiry on the spot, give any detail of the interesting and important events which took place subsequent to our departure. The following brief sketch, however, will serve to wind up the various accounts already given. The facts, I am confident, are correctly stated: to reason upon them to any useful purpose is a difficult task, and one which I am not prepared to undertake. Few persons in England have succeeded in acquiring any distinct conception of South American politics, from the accounts given in the newspapers, or other publications; and it may be some consolation to others to know, that, at this distance, even those who have been long on the spot, and know all the parties concerned, find very considerable difficulty in getting at the truth of any events sub-

sequent to their visit. Even with the assistance of trust-worthy correspondents, and facilities of reference to authentic documents, they still encounter no small difficulty in arranging their information, so as to estimate correctly the merits of the great measures which are to settle the fate of the country. An unprejudiced and connected narrative, written by an impartial eye-witness, is the only remedy for this evil. The field of view, indeed, is so immensely extensive, so remote, and so crowded with new objects; and the information we receive has to pass through such an atmosphere of prejudice and selfishness, and comes to us at such irregular intervals, that it is almost out of the question for any one, not on the spot, to acquire adequate means of forming a correct judgment of what is passing in South America.

In August 1821, as has been stated, San Martin became self-elected Protector of Peru. After this he proceeded steadily in recruiting and disciplining his army; in reforming the local abuses in the administration of affairs; in preparing and promulgating a provisional statute by which the government was to be administered, until the permanent constitution of the state should be established. Having business to transact at Truxillo, a sea-port town to the northward of Lima, he appointed the Marquis of Torre Tagle as supreme delegate in his absence. The person, however, essentially charged with the executive administration, was Don Bernardo Monteagudo, a very able man and a most zealous Patriot; but who, besides being unpopular in his manners, was a bitter enemy to the whole race of Old Spaniards. After a short absence San Martin returned, yet he did not ostensibly re-

sume the reins of government, nor live in the palace; but retired to La Magdalena, his country-house, at a short distance from Lima.

Towards the end of the year 1821, a decree was published, ordering every unmarried Spaniard to leave the country, and to forfeit half his property; and within a few months afterwards, this decree was extended to married men also. Upon one occasion, no less than four hundred Spaniards of the first families, and the most wealthy persons in Lima, were forcibly taken from their houses and marched on foot to Callao; surrounded by guards, and followed by their wives and children, of whom they were not even allowed to take leave, before they were thrust on board a vessel, which sailed immediately with them to Chili. Though, by the original decree, only one-half of the property of Spaniards was confiscated, it was soon altered to the whole; and, in July 1822, the ruin of the Old Spaniards was complete. The manner, also, in which this persecution was carried on, is said to have been unfeeling and ill-judged: the most insulting decrees were published, such as, "That no Spaniard should wear a cloak, lest he should conceal weapons"—"That they should never be seen out of doors after the vespers"—"That no more than two should be seen together;" and, it is even said, a Spanish woman was once actually put in the pillory for speaking disrespectfully of the Patriot cause.

The whole of these arbitrary measures were carried into effect during the nominal administration of Torre Tagle; and it was generally believed, that their offensive and cruel execution originated with the prime minister Monteagudo. But if they be

in themselves unjustifiable, and deserve the imputation of tyranny, it will not avail San Martin's friends to say they were the acts of another; for he was notoriously the main-spring of the whole government, nor would he himself seek to escape censure, if the measures were proved to be wrong, by any such subterfuge.

In May the Patriot army under General Tristan, sent by San Martin against the Spaniards, was defeated: still he remained inactive. In July he left Lima for Guayaquil, where he had an interview with Bolivar. During his absence the people of Lima, irritated by the arbitrary proceedings of the minister Monteagudo, forcibly deposed, imprisoned, and afterwards banished him to Panama. A new minister was chosen by the supreme delegate, and confirmed in his appointment by San Martin on his return from Guayaquil; from whence he sailed in August with a body of troops furnished by Bolivar.

The Sovereign Constituent Congress, consisting of Representatives, elected by the different liberated provinces, had been several times convoked, but as often prorogued: till at length, San Martin, to the surprise of many persons who believed he was aiming at permanent power, complied with the general wish of the people, and actually assembled the deputies on the 20th of September 1822. Into their hands he immediately resigned the supreme authority which he had assumed a year before. The Congress, in return, elected him, by unanimous decree, generalissimo of the armies in Peru. But he resolutely declined receiving more than the mere title, which he consented to accept as a mark of the approbation and confidence of the

Peruvians; declaring that, in his opinion, his presence in Peru in command of the forces was inconsistent with their authority. The following is a translation of the answer which he made to the Congress, on their invitation to him as Generalissimo.

“ At the close of my public life, after having resigned into the hands of the august Congress of Peru the supreme authority of the state; nothing could have flattered me so much as the solemn expression of your confidence, in naming me Generalissimo of the national forces, by sea and land, which I have just received by a deputation from your house. I have had the honour to signify my sincere gratitude to those who made me this communication; and I have since had the satisfaction to accept the title alone, because it marks your approbation of the brief services which I have rendered this country.

“ But, in order not to compromise my own feelings, and the best interests of the nation, allow me to state, that a painful and long course of experience has taught me to foresee, that the distinguished rank to which you wish to raise me, far from being useful to the nation, were I to exercise the authority, would only frustrate your own intentions, by rousing the jealousy of those who are anxious for complete liberty; and by dividing the opinion of the people, would diminish that confidence in your decisions, which nothing but unqualified independence can inspire. My presence in Peru, considering the authority I lately possessed, and the power I should still retain, is inconsistent with the moral existence of your sovereign body, and with my own opinions; since no prudence, nor forbear-

ance, on my part, will keep off the shafts of malevolence and calumny.

“ I have fulfilled the sacred promise which I made to Peru : I have witnessed the assembly of its representatives : the enemy’s force threatens the independence of no place that wishes to be free, and possesses the means of being so. A numerous army, under the direction of warlike chiefs, is ready to march in a few days to put an end to the war. Nothing is left for me to do, but to offer you my sincerest thanks, and to promise, that if the liberties of the Peruvians shall ever be attacked, I shall claim the honour of accompanying them, to defend their freedom like a citizen.”

The Congress, who were either unwilling, or affected to be unwilling, that San Martin should view their offer in this light, wrote to entreat him to take the actual command of the armies ; quoting, in their letter, his own expression in his address to them on their meeting, where he says : “ The voice of the sovereign authority of the nation shall always be listened to with respect by San Martin, as a citizen of Peru, and be obeyed by him, as the first soldier of liberty.”

This appeal, however, did not change the resolution which San Martin had formed on the occasion ; and having issued the following proclamation, he went to Callao, embarked in his yacht, and immediately sailed for Chili ; leaving the Peruvians, as they had wished, to the management of the Congress they had themselves elected.

“ PROCLAMATION.

“ I have witnessed the declaration of the inde-

pendence of Chili and Peru : I hold in my hand the standard which Pizarro brought over to enslave the empire of the Incas : I have ceased to be a public man : and thus are repaid to me, with usury, (con usura,) ten years spent in revolution and war.

“ My promises to the countries in which I made war are fulfilled—I give them independence, and leave them the choice of their government.

“ The presence of a fortunate soldier, however disinterested he be, is dangerous to newly-constituted states ; on the other hand, I am disgusted with hearing that I wish to raise myself to the throne. Nevertheless, I shall always be ready to make the utmost sacrifice for the liberties of the country, but in the character of a private individual, and in no other, (en clase de simple particular, y no mas.)

“ With respect to my public conduct, my countrymen, as usual, will be divided in opinion : their children will pronounce the true verdict.

“ Peruvians ! I leave you the national representation established : if you repose implicit confidence in them you will surely triumph :—if not, anarchy will devour you.

“ God grant that success may preside over your destinies, and that you may reach the summit of felicity and peace.

“ Dated in the Free City, (Pueblo Libre,)

“ 20th September, 1822.

(Signed) “ JOSE DE SAN MARTIN.”

The sovereign Congress, thus left to themselves, appointed a governing junta of three experienced men. They also passed an immense number of decrees to little or no purpose ; and everything very soon went into utter confusion under their inexpe-

rienced guidance. Indeed, the greater number of the deputies were men who knew little or nothing of the science of legislation. In November 1822, an expedition sailed from Lima for the south coast ; but in January 1823, shortly after landing, they were completely defeated. This disaster was followed by general discontent, and in February, the sittings of the Congress were suspended by Rivagüero the President, who subsequently dissolved them in a summary, and, as it was said, a most unconstitutional manner.

The royal troops soon took advantage of the imbecility of the Patriots, who were without a leader : and in June 1823 General Canterac re-entered Lima ; and, having driven the Patriots into Callao, levied heavy contributions of money and goods on the inhabitants, destroyed the mint, and retired again to Upper Peru, after a stay of only fourteen days.

While these ruinous proceedings were going on, Bolivar was bringing the war in Colombia to a close ; and foreseeing, that if the affairs of Lima were not put into better train the Spaniards would in a short time re-establish their authority, and probably shake the power of the Independents in Colombia ; he resolved to accept the invitation of the Peruvians, and to proceed to Peru with a considerable force. The Spaniards, however, retired some time before Bolivar's approach. He has since met with various success in that country, the detail of which it is not the purpose of this narrative to enter into. Of the ultimate success of the Independents, there cannot be the slightest doubt : the reverses to which the Peruvians have been subjected, will only have the effect of giving them and

the whole of the other South American States a fresh stimulus to accomplish more completely their great object.

As the character and conduct of San Martin have been made the subject of a controversy into which for many reasons I am unwilling to enter minutely, I shall merely state what are the leading points of this topic; the real merits of which cannot for the present, as I conceive, be fully understood at this distance from the spot.

The first charge made against him is his want of activity and energy in the conduct of the Peruvian war; the next his despotic expulsion of the Old Spaniards in Lima; and the last, his desertion of the Independent cause at a season of great danger and perplexity.

With respect to the first of these charges, enough, perhaps, has already been said, both in describing the effects, and in explaining the principles of his cautious and protracted system of revolutionizing, rather than of conquering the country.

The banishment and ruin of the Spaniards is justified by San Martin's friends on the ground of the obstinate conduct of those individuals themselves, who, it is asserted, resisted every attempt to engage them to co-operate cordially with the Patriots, and who persisted at all times in intriguing for the restoration of the old authority. It is urged by his adherents, that in Colombia and Mexico a similar degree of severity towards the Spaniards has been found indispensable to the safety of the new governments. In Chili, also, and in Buenos Ayres, the same policy has been considered necessary; but as their Revolutions were more gradually brought about, the extirpation of the Spaniards,

though equally complete, has been accompanied by less abruptness.

With respect to the propriety or impropriety of San Martin's leaving the Peruvians to be governed by the Congress, unaided by him, it is difficult to speak decidedly, without more exact and extensive information on the subject than has yet been published. He never made any secret of his wish for retirement, and lost no opportunity of declaring, both publicly and privately, his intention of gratifying his inclinations as soon as the independence of Peru should be established. The question, therefore, seems to be, not whether he was justified in leaving the Peruvians at all, but if he seized the proper moment for doing so. It is true that he undertook to stand by, and protect Peru, when the sole charge was placed in his hands; but when the inhabitants, after a whole year's reflection, thought fit to claim from him the privilege of being governed by representatives chosen from amongst themselves, he did not feel justified in refusing their demand. Yet, at the same time, he may not have considered himself at all called upon, as the subject of another state, to serve a country that no longer sought his protection; but which, on the contrary, felt competent to its own defence, and entitled to an uninfluenced government; which, in his opinion, it could never possess as long as he was present. It was altogether contrary to his usual practice and feelings to use force in advancing his opinions:—and finding that he had lost his influence, and that the whole country, and even Buenos Ayres and Chili, accused him of a wish to make himself king—he was resolved to abandon, for the present, a cause he could no longer benefit.

Viewing matters then as they now stand, or seem to stand, and reflecting on the character of San Martin, it is quite evident that he is a man not only of great abilities, both as a soldier and a statesman ; but that he possesses, in a remarkable degree, the great and important quality of winning the regard, and commanding the devoted services of other men. To these high attributes he is indebted for the celebrity he acquired by the conquest of Chili, and its solid establishment as a free state : and, whatever may be said of his latter conduct in quitting Peru, when he found it impossible to govern it in the manner he wished, he may still safely lay claim to the full honour of having also paved the way for the liberation of that country.

These are no trifling services for one man to perform ; and if we believe San Martin in earnest in his desire for retirement, as I most sincerely do, we shall have still more reason to respect that disinterested public spirit, and that generous love of liberty, which could, for so many years, surmount every consideration of a private nature. It is so rare to see such high powers as he unquestionably possesses, united with a taste for domestic and retired life, that many are slow to believe him sincere. If, however, that doubt be removed, and the above character be supposed fairly drawn, we shall arrive at an explanation of his conduct, perhaps not far from the truth ; by supposing him to have imagined, at the time he retired, that he had done enough, and that, consistently with his real character and feelings, he could be of no further service to the Peruvians ; or that, at all events, his presence was not likely to advance their cause ; and that, by retiring for a time, he might more essentially advance

the great object of his life, than he could hope to do by struggling against the wishes of the country so decidedly expressed.

This is stated neither as praise nor as blame : but simply as affording some explanation of a very curious historical event. Whether or not it would have been better for the cause of Peruvian Independence, had the chief actor in the Revolution been a man of sterner nature, is another question entirely : my sole object, in this sketch, has been to draw as faithful and impartial a picture as I possibly could of what has actually taken place.

San Martin, after retiring to his country-seat at Mendoza, on the eastern side of the Andes, hoped to find some relaxation from his long course of laborious exertions. But such men are seldom allowed to remain quiet in those times ; and he was soon solicited to join various political parties, both in Chili and in Buenos Ayres ; and was also repeatedly urged to return to Peru. His name and influence, in short, were considered of so much consequence in those countries, that, in spite of all he could do, he was not permitted to live a retired life. Not choosing, however, to remain as a rallying point of discontent, or a cause of alarm to those governments, he resolved to come to Europe, where he might hope to live beyond the reach of these intrigues, and hold himself ready to return, when he should conceive that circumstances rendered his presence useful to the cause of Independence.

Since the period alluded to this distinguished officer has resided at Brussels, and at this moment, the end of 1825, is still living in perfect retirement.

CHAPTER XXXV.

VISIT TO PAYTA—THE TOWN TAKEN AND SACKED BY LORD ANSON—SCARCITY OF WATER—GUAYAQUIL RIVER—DESCRIPTION OF THE HAMMOCKS USED BY THE LADIES—REMARKABLE FAIRNESS OF COMPLEXION OF THE WOMEN OF THIS CITY.

ON the 17th of December 1821, we sailed from Callao Roads, and coasted along to the northward till the 20th; when we anchored off the town of Payta, a place celebrated in Anson's Voyage, as well as in the histories of the old Buccaneers.

Lord Anson's proceedings, we were surprised to find, are still traditionally known at Payta; and it furnishes a curious instance of the effect of manners on the opinions of mankind, to observe that the kindness with which that sagacious officer invariably treated his Spanish prisoners, is, at the distance of eighty years, better known, and more dwelt upon by the inhabitants of Payta, than the capture and wanton destruction of the town.

We had scarcely anchored, before the captain of the port came on board, accompanied by a person whom he chose to call an interpreter; but who, upon being put to the proof, was so drunk, as not to be able to articulate one word of any language whatever.

The heat is always considerable at Payta; and as no rain falls, the houses are slightly constructed of an open sort of basket-work, through which the air blows freely at all times; the roofs, which are high and peaked, are thatched with leaves: some of the walls are plastered with mud, but, generally speaking, they are left open. After having examined the town, a party was made to visit the neighbouring heights; from whence we could see nothing, in any direction, but one bleak, unbroken waste of barren sand. Our guide, who was rather an intelligent man, expressed much surprise at our assiduity in breaking the rocks; and at the care with which we wrapped up the specimens. He could not conceive any stone to be valuable that did not contain gold or silver; and supposing that we laboured under some mistake as to the nature of the rock, repeatedly begged us to throw the specimens away, assuring us it was merely "piedra bruta," and of no sort of use.

On returning through the town, we were attracted by the sound of a harp, and, following the usage of the country, we entered the house. The family rose to give us their seats; and, upon learning that it was their music which had interested us, desired the harper to go on. After he had played some national Spanish airs, we asked him to let us hear a native tune; but he mistook our meaning, and gave us, with considerable spirit, a waltz, which, not very long before, I had heard as a fashionable air in London,—and here it was equally popular at Payta—one of the most out of the way and least frequented spots in the civilized world. Of the tune they knew nothing, except how to play it: they had never heard its name, or that of the com-

poser, or of his nation; nor could they tell when, or by what means, it had come amongst them.

While our boat was rowing from the ship to the shore to take us on board, we stepped into a house, near the landing-place, where we were hospitably received by a party of ladies assembled near the wharf, as we surmised, to have a better view of the strangers as they embarked; at least they seemed very well pleased with our visit.

Being nearly choked with dust, I began the conversation by begging a glass of water; upon which one of the matrons pulled a key from her pocket, and gave it to a young lady, who carried it to the corner of the room, where a large jar was placed, and unlocking the metal lid, measured out a small tumbler full of water for me; after which she secured the jar, and returned the key to her mother. This extraordinary economy of water arose, as they told us, from there not being a drop to be got nearer than three or four leagues off; and as the supply, even at this distance, was precarious, water at Payta was not only a necessary of life, but, as in a ship on a long voyage, was considered a luxury. This incident furnished a copious topic, and on speaking of the country, we rejoiced to learn, that we had at length very nearly reached the northern limit of that mighty desert, along which we had been coasting ever since we left Coquimbo, a distance of sixteen hundred miles.

We weighed as soon as the land-wind began to steal off to us, and steered along-shore, with the sea as smooth as glass, and the faint sound of the surf on the beach just audible. On the evening of the 22d of December, we anchored off the entrance of the Bay of Guayaquil: but, owing to the light

winds and the ebb tide, it was not till the evening of the next day, that we reached the entrance of the river. The weather, in the day-time, was sultry and hot to an intolerable degree: at night, the land-breeze, which resembled the air of an oven, was heavy and damp, and smelled strongly of wet leaves and other decaying vegetables. We anchored near a small village on the great Island of Puna, which lies opposite to the mouth of the river, and presently afterwards a pilot came off, who, to our surprise, undertook to carry the ship up the river, as far as the town, in the course of the night. It was very dark, for there was no moon: not a soul in the ship had ever been here before; the pilot, however, appeared to understand his business perfectly, and I agreed to his proposal, upon his explaining, that, during the greater part of the night, the wind and tide would be favourable, whereas in the day-time both were likely to be adverse.

This pilot was a remarkably intelligent person, and I have observed in every part of the globe, that this class, and in most cases the guides on shore also, are a superior race of men to the generality of their countrymen of the same rank in life; a remark which holds good, whatever be the degree of civilization of the rest of the inhabitants. The reason of this striking fact is intelligible enough: a pilot must know his business thoroughly, if he is to subsist at all; for, if he knows it imperfectly, he soon runs a ship on shore, and from that instant his occupation is so utterly gone, that we see no more of him. Thus the profession, in process of time, is effectually weeded of the inefficient plants; or, what is the same thing, none are allowed to assume

the office without an adequate education, and a due course of experiment as to general ability. This is of essential consequence, for the duties of a pilot are frequently of a high order, and require much foresight and presence of mind, in addition to accurate local knowledge. It happens also, generally speaking, that where a man is well informed upon any one subject, he will have tolerably just ideas upon many others; and a good pilot will probably be a man of more general information than those about him. It is an amusing and exhilarating sight, after a long voyage, to observe the eager crowd which assembles round the pilot, generally the first person who comes on board. Questions are poured upon him by hundreds: every word he speaks is received with the most greedy anxiety, and is long recollected as the first touch of a renewed intercourse with scenes from which we have been long cut off. This is more remarkably the case on the return home; but even in strange countries, and on occasions such as the present, the interest is always of a peculiar and lively description. The novelty of the stranger's language, the strange dress, the foreign manners, and the new story he has to tell, all conspire to awaken the attention even of the dullest booby on board; and for some time afterwards, it is easy to discover, on coming upon deck, that a new set of topics are afloat. Various detached groups are soon formed on the deck—some to obtain and some to impart information—some to discuss what they have just heard, and others to frame new interrogatories to the stranger, who, like the inhabitant of another planet, seems to have dropped from the clouds amongst them. I may take occasion here to mention, what indeed might have

been inferred from other views of society—the wonderful difference which exists amongst voyagers as to the degree of curiosity, and, generally speaking, of interest, as to strange objects, on approaching countries quite new to them.

Curiosity is thought to be the most universally diffused of human passions, if I may call it so, and a pretty general belief is entertained, that it is strongest in the rudest and least cultivated stages of society. All my experience goes in the other direction, and tends to show that curiosity, and the faculty of observing to agreeable and useful purpose, are qualities which improve by exercise in acuteness and power, more than almost any others. Of our number in the Conway, there were many on their first voyage, who took scarcely any interest, either pleasurable or otherwise, in the very novel circumstances which were constantly presenting themselves to our view. On the other hand, all those who had travelled much previously, were far more interested with the new objects than those who had never gone beyond the Atlantic. Those, in short, who had most objects stored up in their memory, were perpetually finding out similitudes or discordances at once curious and instructive. Their field of observation appeared to be ten times wider than that of the others; they seemed to have the faculty of discovering, at every turn, innumerable distinctions and combinations, abundantly manifest, when pointed out, but which were passed unheeded by those who had less experience. Thus, instead of a more extended view of the world and its wonders, rendering an observer fastidious and indifferent about what are called ordinary objects, I have observed that exactly the contrary effect

takes place. The truth seems to be, that in every natural scene, the number and variety of objects which are worthy of attentive examination are so great, that no diligence can hope to describe, or even to enumerate, the whole. To many eyes, however, these nicer differences, or refined analogies, are totally and irremediably invisible, just as certain sounds are said to be inaudible to certain ears. Some observers are so ignorant, or so perverse, that they will insist upon looking at the wrong end of the telescope, and are predetermined to see everything in little which is out of their own country; on such people, of course, travelling is quite thrown away, or, what is worse, it tends only to confirm prejudice and error. Others are sufficiently disposed to hold the glass properly, but still can see little but a confused mass of many images floating before them. I would illustrate the proper effect of travelling by suggesting, that it gives the judicious observer the power of adjusting the focus of his mental telescope to that distinct vision, suited to his particular taste and capacity; and the faculty thus acquired will generally be found available not only in contemplating, to good purpose, new objects in remote countries, but will open up to his improved powers of perception, wide fields of curious and rich inquiry, or of agreeable observation, in quarters with which he had imagined himself to be already so thoroughly and familiarly acquainted, that nothing further was to be discovered.

It was not until I had made many voyages, and thus learned to appreciate the value of scenery, that I became sensible of the matchless beauty and grandeur of the landscape round the spot where I passed my early life, totally unconscious that the world

possessed nothing more varied, or more worthy of being admired.

The river was in general broad and deep, though at some places there were abrupt turnings, and many shoals, which sometimes obliged us to keep so close to the banks, that it seemed, in the dark, as if our yard-arms must get entangled with the branches of the trees, which grew down to the very water's edge. The wind was gentle, but steady, and just enough, in such perfectly smooth water, to keep the sails asleep, as seamen express it, when in light winds they do not flap against the mast.

By means of this faint air, and the tide together, we shot rapidly up the river, threading our way, as it were, through the woods, which stood dark and still, like two vast black walls along the banks of the stream. Men were placed by the anchor, and all hands were at their stations, ready at an instant's warning to perform any evolution : not a word was spoken, except when the pilot addressed the helmsman, and received his reply ; not the least noise was heard but the splash of the sounding-lead, and the dripping of the dew from the rigging and sails on the decks. The flood-tide, which we had caught just at the turn on entering the river, served to carry us quite up to the town, a distance of forty miles ; and at four o'clock, after passing the whole night in this wild and solemn sort of navigation, we anchored amongst the shipping off the city. As the day broke, the houses gradually became visible, presenting to the eye forms and proportions which varied at every moment, as fresh light came in to dissipate the previous illusions. At length the old city of Guayaquil stood before us, in fine picturesque confusion.

I had a letter of introduction to a gentleman, who received me in the easy style of the country, and at once undertook to put us in the way of procuring fresh provisions and other supplies ; carried me to the Governor's to pay the usual visit of ceremony, and afterwards offered to introduce my officers and myself to some families of his acquaintance. We were somewhat surprised, on entering the first house, to observe the ladies in immense hammocks made of a net-work of strong grass, dyed of various colours, and suspended from the roof, which was twenty feet high. Some of them were sitting, others reclining in their hammocks : with their feet, or, at least, one foot left hanging out, and so nearly touching the floor, that when they pleased, they could reach it with the toe, and by a gentle push give motion to the hammock. This family consisted of no less than three generations : the grandmother lying at full length in a hammock suspended across one corner of the room ; the mother seated in another, swinging from side to side ; and three young ladies, her daughters, lounging in one hammock attached to hooks along the length of the room. The whole party were swinging away at such a furious rate, that at first we were confounded and made giddy by the variety of motions in different directions. We succeeded, however, in making good our passage to a sofa at the further end of the room, though not without apprehension of being knocked over by the way. The ladies, seeing us embarrassed, ceased their vibrations until the introductions had taken place, and then touching the floor with their feet, swung off again without any interruption to the conversation.

We had often heard before of the fair complexion

of the Guayaquilenas, but had fancied it was merely comparative. To our surprise, therefore, we found these ladies quite as fair and clear in complexion as any Europeans : unlike the Spaniards also, their eyes were blue, and their hair of a light colour. The whole party maintained the character for pre-eminence in beauty, for which Guayaquil is celebrated in all parts of South America : even the venerable grandmother preserved her looks in a degree rarely met with between the tropics. This is the more remarkable, as Guayaquil lies within little more than two degrees south of the Equator : and being on a level with the sea, is during the whole year excessively hot. Some people ascribe the fairness of the women, and the wonderful permanence of their good looks, to the moisture of the air ; the city having on one side a great marsh, and on the other a large river ; while the country, for nearly a hundred miles, is a continued level swamp, thickly covered with trees. But how this can act to invert the usual order of things, I have never heard any one attempt to explain ; certain it is, that all the women we saw were fair, and perfectly resembled, in this respect, the inhabitants of cold climates.

At the next house, the most conspicuous personage we encountered was a tall, gentlemanlike, rather pompous sort of person ; dressed in a spotted linen wrapper, and green slippers, with his hair cropped and frizzled after a very strange fashion. His wife, a tall handsome woman, and his daughter, a grave pretty little freckled girl, as we thought of sixteen years of age, but actually only thirteen, were seated in a hammock ; which, by the united

efforts of their feet, was made to swing to a great height. In another very large hammock sat a beautiful little girl of five years of age, waiting impatiently for some one to swing it about. On a sofa, which was more than twenty feet long, sat two or three young ladies, daughters of the lady in the hammock, and several others, visitors; besides five or six gentlemen, several of whom were dressed, like the master of the house, in slippers and various coloured night-gowns of the lightest materials.

On first entering the room, we were astounded by the amazing clatter of tongues speaking in tones so loud and shrill, and accompanied by such animated stampings and violent gesticulations, that we imagined there must be a battle royal amongst the ladies. This, however, we were glad to find was a mistake; it being the fashion of the country to scream or bawl, rather than to speak, in familiar conversation.

Not long after we were seated, and just as the war of words and attitudes was recommencing after the pause occasioned by the ceremony of presenting us; another daughter, a young married lady, came tripping into the room, and with a pretty and mirthful expression of countenance, and much elegance of manner, went round the company, and begged to be allowed to let fall a few drops of lavender water on their handkerchiefs. To each person she addressed something appropriate in a neat graceful way, beginning with the strangers, to whom she gave a kind welcome, and hoped their stay would be long and agreeable. She then retired amidst the plaudits of the company, who were delighted with the manner in which she had done

the honours of the house ; but she returned immediately, bringing with her a guitar, which she placed in the hands of a young lady, her friend, who had just come in, and then dropped off modestly and quietly to the furthest end of the great sofa.

CHAPTER XXXVI.

DISCUSSIONS ON THE FREEDOM OF COMMERCE—LETTER ON THE SUBJECT OF UNRESTRICTED COMMERCE—GRADUAL INTRODUCTION OF WISER NOTIONS ON THIS SUBJECT.

MEANWHILE the master of the house sat apart in deep conversation with a gentleman recently arrived from Lima, who was recounting to his friend the amount of various duties levied at that place by San Martin's government. He listened very composedly till the narrator mentioned the duty on cocoa. The effect was instantaneous ; he rose half off his seat, and with a look of anger and disappointment, was preparing to utter a furious philippic against San Martin. The other, observing the expression of his friend's countenance, which was wrinkled up like that of a game-cock in wrath, and dreading an explosion, took upon himself to put his friend's looks into language, and then to answer them himself ; and all with such volubility, that the unhappy master of the house, though bursting with impatience to speak, never got an opportunity of saying a single word. The scene itself was in the highest degree comic ; but the inference to be drawn from it is also worth attending to. In former times, when monopoly and restrictions blighted every commercial and agricultural speculation ; and when the wishes of individuals were never taken into account ; and

all exertion, or attempt at interference with the establishment of duties, was utterly hopeless; this man, now so animated, had been given up to indolence, and nothing connected with the custom-house had ever been known to rouse him to the slightest degree of action. Ever since the opening of the trade, however, he had taken the liveliest interest in all that related to import duties at Lima, especially on the subject of cocoa, of which he was an extensive planter.

In former times, all such things being irrevocably fixed, no exertions of any individual could remedy the evils which, by rendering every effort the inhabitants could make useless and hopeless, repressed all the energies of the country. And the charge, so often laid against the natives by the Spaniards, that they were stupid and incapable of understanding such subjects, was a cruel mockery upon men who had been from all time denied the smallest opportunity of making any useful exertion. Now, fortunately, it is far otherwise: the people have acquired a knowledge of their own consequence and power; and, instead of submitting quietly, as heretofore, to be cheated at every turn, and letting all things pass unregarded, from utter hopelessness of amelioration; they take a deep and active interest in whatever affects their fortunes in the slightest degree. This spirit, which, in the hands of persons but partially acquainted with the subject, at first leads to many errors in practice, will, ere long, undoubtedly produce the best effects, by enriching that great field of commerce, which wants nothing but the fertilizing influence of freedom to render it in the highest degree productive.

The most glaring practical error which the

Guayaquilenians have committed, and under which they were suffering at the time of our visit, was the exclusion of foreigners from their commercial establishments; none except a native being permitted to be at the head of a mercantile house; while the duties paid by foreign goods were so great as to amount nearly to a prohibition. They had thus voluntarily reduced themselves in a great degree to the state in which they were placed before the Revolution. This arose from ignorance it is true; but ignorance is sufficiently excusable in people heretofore purposely misdirected in their education. It was pleasing, however, to observe more correct views gradually springing up, and in the quarter where they were least likely to appear—amongst those very merchants themselves for whose benefit these absurd restrictions had been imposed. The following translation of a letter published in the Guayaquil newspapers, will show the progress already made in the right path. It is written by a man who probably derived more benefit than any other from the restrictions he condemns; but his good sense and liberal views showed him that if they were removed, his gains would become still greater.

To those who recollect the state of the press, and of everything else in former times, such a letter in a Spanish colonial paper will appear a wonderful phenomenon; and though containing nothing but common-places, brings with it a long train of interesting and useful reflections.

“MR EDITOR,

“Nothing could distress me more than to hear that my former observations had offended any indi-

vidual ; and I declare that my sole object has been to explain my opinion on a subject, upon which, according to my view of it, much of the prosperity of this province depends. I allude to the commercial regulations ; and all the world knows that those existing before our political transformation subjected the whole province to the most insulting monopoly ; the right of supplying it with goods, and of exporting its productions, being reserved exclusively for the merchants of Cadiz, so that the province could not possibly prosper. After our conversion into a free state, the public had a right to hope that the disease being discovered, the remedy would have been instantly applied ; and I for one confess that I really did hope it would be so. I believed that we should immediately see liberal institutions tending directly to the benefit of the province ; but, lamentable to say, the same monopoly still continued in a very great degree. I see that its effects are the same, and that the population in general have received no relief from the establishment of the new institutions.

“ The commercial regulations, recently published, bear me out in what I have said. I respect, in the highest degree, the authority which enforces those laws ; but I must be allowed to observe, that, in their formation, the true interests of the people have not been consulted. The exclusive privileges which those regulations grant to the merchants are most grievous to all the rest of the population, as I shall endeavour to prove. It is a well-known principle, that the wealth of a people consists in satisfying their wants at the lowest cost possible ; and disposing of their own productions at the highest cost possible. The regulations alluded to have a

direct tendency to prevent this ever taking place. The trammels in which foreign intercourse is held by the third, twelfth, and fifteenth regulations, will for ever exclude it from our port, and limit the buyers and sellers in our province, to an exceedingly small number: this result, although it be not so styled, is precisely the same thing as the ancient monopoly; a mischievous system, under which no country can prosper. The regulations cited above gave our merchants an absolute power over the rest of the people—they impose the most unworthy obligations on foreign merchants, and subject them to a degrading subordination. There can be no doubt, indeed, if they be allowed to continue, that our commerce will remain in the same confined state as formerly, and the interests of the whole province will be sacrificed to those of a new monopoly.

“I am a merchant who fully enjoy the exclusive privileges of the regulations; and, happening to be acquainted with all the languages most useful in commerce, I possess an advantage over most of my companions; nothing, therefore, in appearance can be more beneficial to me, than the enforcement of the three articles in question. But as long as I desire the good of the province, and prefer the interest of the public to my own, I shall never cease to pray that these evils, which paralyse all commerce, may be corrected.

“Let those three articles be erased, and I pledge myself, that, before a year shall have elapsed, the beneficial influence of a commerce, really free, will begin to be felt. Foreign merchants protected by law, and seeing their speculations encouraged in every way not opposed to the public advantage,

will flock to our market ; this competition will lower the price of articles consumed in the country ; while it will raise that of such as are produced in it for exportation, and opulence will speedily take up her residence amongst us."

The first of the three articles alluded to forbids the introduction of any goods, unless consigned to an inhabitant of the city, and a naturalized subject. The second directs that no stranger shall be allowed to establish a factory, or a commercial house, in the province ; and the third is intended to give such advantages to the native merchant, as must prevent all foreign competition.

As might be expected, these laws were beginning to be evaded by English and other capitalists, who settled on the spot, and, without their names appearing, really transacted the whole business. The government were by these and other circumstances eventually made to feel the absurdity of their restrictions, and I have been informed that a new and liberal set of regulations has since been established.

CHAPTER XXXVII.

GUAYAQUIL.

POLITICAL REVOLUTIONS OF GUAYAQUIL—DECLARES ITSELF AN INDEPENDENT STATE—MILITARY INTERFERENCE—TERROR EXCITED BY THESE COMMOTIONS—POLITICS THE REIGNING TOPIC, EVEN AMONGST THE LADIES—GENERAL VIEW OF THE STATE OF POLITICS IN SOUTH AMERICA.

IN the latter end of the year 1820, Guayaquil declared itself independent of the Spanish authority; framed a new government; established laws, and opened the port to foreign trade. They hampered it, however, injudiciously, in the manner alluded to in the foregoing letter; and, consequently, little good arose from the change, or at all events, much less benefit than a more liberal system would have produced.

The population in this town is about twenty thousand, and in the surrounding country subject to it, about fifty thousand more; and although it is evident that so small a town, and so limited a population, were insufficient to constitute a separate state, yet at the time I speak of, the surrounding countries were so circumstanced that no other power had leisure to interfere; and Guayaquil threw off the Spanish yoke. It is the principal

port of Quito, and belonged formerly to the province of New Granada, at that time in possession of the Spaniards, who, however, were prevented from sending troops to re-establish their authority, as their whole attention was then occupied in trying to repel the Patriots. When Bolivar was creating the Republic of Colombia in 1819, he included Guayaquil in that territory, although he had not actually taken possession of it. In the meanwhile, the people of Guayaquil, as has been stated, became independent, and remained as a separate state, till Bolivar came in the middle of 1821, and then he confirmed his former appropriation of this port to Colombia. But the place was still disturbed, and the Guayaquil flag was again hoisted. The only other person besides Bolivar that could have interfered with them was San Martin; but he had enough on his hands already; so that, in the general bustle, Guayaquil was allowed to carry its Independent flag, and call itself a separate state unmolested. All reflecting persons in the town, however, saw that it was utterly impossible to maintain such a position, and that, sooner or later, they must fall permanently under one or other of the great powers, Colombia or Peru. The inhabitants were nearly divided on this subject; and, contemptible as the discussion was, more violent party-spirit was never displayed. A constant war of words was maintained, for no swords were drawn: distinguishing badges were worn by the different parties; and each bawled out in the streets, or from their windows, the names of their respective favourites, Bolivar or San Martin. There was something a little ludicrous, perhaps, in their notion of displaying an Independent flag, and call-

ing themselves an independent nation, while in the same breath they were vociferating their determination to submit to the will of a military leader, and were quarrelling amongst themselves, merely as to which of the two chiefs they would be governed by. It was an election, however, and one in which all classes took an active and sincere part. This was a new thing for South Americans, and their spirits accordingly rose with that feeling of freedom, which the exercise of an elective right inspires more than any other. The whole scene, therefore, was highly animated, and more like that of an English election, than anything I had before seen abroad.

They must needs have an army too ; and as in revolutionary times, the military always take upon themselves to become a reflecting body, and as they wear by their side a cogent and effective argument, they generally usurp no small share of influence. Accordingly, on Christmas eve, at the time we were sailing up the river, the whole army of the state of Guayaquil, consisting of one regiment, marched out of the town, and having taken up a position half a league off, sent in a message at day-break to the governor, to say they were determined to serve under no other flag than that of Bolivar ; and unless they were indulged in this matter, they would instantly set fire to the town. The governor, with the good sense and prudence of utter helplessness, sent his compliments to the troops, and begged they would do just as they pleased. Upon the receipt of this civil message, one-half of the regiment feeling much flattered with having the matter left to their own free choice, and being rather anxious, perhaps, for their break-

fast, which was waiting for them, agreed to relinquish the character of rebels, and come quietly back to their allegiance.

The government thus strengthened, took more vigorous measures, and lost no time in acceding to the wishes of the remainder of the troops, who were embarked in the course of the morning of our arrival, and sent up the river to join Bolivar's forces, at this time surrounding Quito. This measure was adopted at the recommendation of General Sucre, one of Bolivar's officers, whose head-quarters were actually in Guayaquil, notwithstanding its boasted independence. The whole affair, indeed, looked like a burlesque on revolutions: most fortunately no blood was shed; for as both the soldiers who went out of the town, and the inhabitants and such of the military as remained, had arms in their hands, it is difficult to say how tragical this farce might have been in its catastrophe, had they not come to some terms. Although it ended so peacefully, there was considerable alarm throughout the town during the whole of Christmas day, and no flag of any kind was flying till about noon, when, upon the suppression of the rebellion, the Independent national Standard was again displayed.

On the 26th, the alarm had completely subsided, and all was going on as before. As it was a fast-day, however, no business could be done, nor any supplies procured; and as all the people I wished to see were occupied at mass, I took the opportunity of making some astronomical and magnetical observations, on the left bank of the river, immediately opposite the town: a spot which, from its solitude, appeared well suited to this purpose. But, on rowing up a little creek, we came unex-

pectedly to a large wooden house, half concealed by the trees ; here we found a merry party of ladies, who had fled on Christmas eve during the alarm. They carried us into the forest to show us a plantation of the tree which yields the cocoa, or more properly cacao-nut, from which chocolate is made. The cacao grows on a tree about twenty feet high. The nut, such as we find it, is contained within a rind of a melon shape, as large as a man's two fists, with the nuts or kernels clustered in the inside. The fruit grows principally from the stem, or, when found on the branches, still preserves the same character, and grows from the main branch, not from a lateral twig.

Whilst we were losing our time with these merry gossips, a messenger arrived to inform the ladies that a boat had been sent to carry them back, as the city was again restored to tranquillity. We escorted them to the creek, and saw them safely into their boat, having made more progress in our acquaintance in an hour, than we could have done in a month, in countries further removed from the sun, and from the disorders of a revolution.

We were still in good time for making our observations at noon ; but the heat at that hour was intense, for there was not the least breath of wind ; and as soon as the meridian observation was over, we retreated to a thick grove of plantain trees, to make some experiments with the dipping needle. Here, though completely sheltered from the sun, we had a fine view of the river, and the town beyond it. The stream, which at this place is about two miles broad, flowed majestically along, with a surface perfectly smooth and glassy ; bearing along, on its steaming bosom, vast trunks of trees and

boughs, and large patches of grass. The town of Guayaquil, viewed through the vapour exhaled from the river, and the glowing banks, was in a constant tremour—there was no sound heard, except now and then the chirp of a grasshopper,—the birds, which soared sleepily aloft, seemed to have no note—everything, in short, spoke to the senses the language of a hot climate.

I dined at two o'clock, with the author of the foregoing letter, and afterwards rode with him to see the lines thrown up for the purpose of keeping off the Spaniards, should they, as was apprehended, make a descent upon Guayaquil from Quito. Such irregular and hastily-constructed means of defending an open town, are held, I believe, in no great respect by military men; yet the moral influence of such undertakings may nevertheless, as in this instance, prove beneficial. It may have the effect of making the people believe themselves in earnest; and thus, by uniting them in a common work, give them confidence in one another's sincerity; a feeling which, if properly guided, may be rendered a great deal more formidable than the artificial defences themselves.

In the evening a party of ladies assembled at our friend's house; but as they arranged themselves in two lines facing one another, in a narrow verandah, it became impossible to pass either between or behind them. At length I discovered a little window, which looked out from the drawing-room into the verandah, near the middle of the station taken up in this determined manner by the ladies. By this time they were all speaking at once, in a loud shrill voice; and so distinctly, that I had no difficulty in distinguishing the words; but of the

conversation, which was entirely made up of local topics, and allusions to characters and incidents of the day, I could make nothing for a considerable time, till at length the subject was changed, and a very spirited discussion on politics commenced. This I could follow : and it was singularly interesting to mark, in the eagerness of these debates, the rapid effect which the alteration in the times had produced, by stimulating even the ladies to become acquainted with a class of subjects, which, two or three years before, the most resolute man in the country dared not think of, much less give an opinion upon.

Being resolved to see somewhat more of these good people than one evening afforded, I invited the whole party to breakfast on board next morning, an invitation which was accepted by acclamation, for they had already set their hearts upon seeing my ship. They were by far the merriest and lightest-hearted people, besides being the fairest and handsomest, we had met with in South America.

Accordingly, next morning, at the expense of a little crowding, we contrived to seat the whole party to a substantial breakfast. As most of the officers of the ship spoke Spanish, we took good care of our party, who split themselves into groups, and roved about the ship as they pleased : a sort of freedom which people greatly prefer to being dragged mechanically round to see everything. Our fiddler being unfortunately indisposed, we could not have a dance, which evidently disappointed no small number of our fair friends ; but even without this powerful auxiliary to form acquaintance, we were all soon wonderfully at ease with one another.

I lamented sincerely, that my duty obliged me so precipitately to leave a spot, holding out a promise of such agreeable society ; and where everything, domestic and political, was at the same time so peculiarly well circumstanced for the exhibition of national character ; and calculated to show, in a more striking light than in quieter times, the real spirit and essence of a country, that has never yet had justice done it, and of which in Europe we still know but little.

There has seldom, perhaps, existed in the world, a more interesting scene than is now passing in South America ; or one in which human character, in all its modifications, has received so remarkable a stimulus to untried action ; where the field is so unbounded, and the actors in it so numerous ; where every combination of moral and physical circumstances is so fully subjected to actual trial ; or where so great a number of states living under different climates, and possessed of different soils, are brought under review at the same moment ; are placed severally and collectively in similar situations ; and are forced to act and think for themselves, for the first time : where old feelings, habits, laws, and prejudices, are jumbled along with new institutions, new knowledge, new customs, and new principles, all left free to produce what chance, and a thousand unthought-of causes, may direct ; amidst conflicting interests and passions of all kinds, let loose to drift along the face of society. To witness the effects of such a prodigious political and moral experiment as this, even in our hurried way, was in the highest degree gratifying and instructive. But the impossibility of examining the whole at leisure ; of watching its progress ; of arranging and connect-

ing the different parts together ; and of separating what was accidental and transient, from that which was general and permanent ; was, indeed, a source of the greatest mortification to us.

As we had now completed our supplies, and finished all our business at Guayaquil, I decided upon sailing ; and at the recommendation of the pilot, agreed to proceed the same evening. It would have been satisfactory to have returned in daylight, that we might have seen that part of the country, which we had before passed in the night-time ; but the tides had changed in the interval of our stay, and again perversely served only at night.

I took a farewell dinner on shore, and in the early part of the evening, just as I was stepping into the boat, was assailed by a large party of ladies, who were on their way to a ball, at which all the world, they said, was to be present. The temptation to stay one day longer was great, and I might, perhaps, have yielded, had I not foreseen that these good and merry people would have discovered means to render our departure more and more difficult every day. On going on board, I found the pilot had deferred moving the ship till eleven o'clock, by which time, he said, the ebb-tide would be running strongly down.

When I came upon deck, accordingly, at that hour, the night was pitch dark, and the damp land-breeze was sighing mournfully among the ropes. On turning towards the town, we saw a blaze of light from the ball-room windows ; and, on looking attentively, could detect the dancers crossing between us and the lamps ; and now and then a solitary high note was heard along the water. Far off in the south-eastern quarter, a great fire in the

forest cast a bright glare upon the clouds above, though the flames themselves were sunk by the distance below the horizon. This partial and faint illumination served only to make the sky in every other direction look more cold and dismal.

CHAPTER XXXVIII.

INTERESTING NAVIGATION DOWN THE RIVER OF GUAYAQUIL BY MEANS OF AN OPERATION CALLED KEDGING—MEETING WITH THE AMERICAN FRIGATE CONSTELLATION—VISIT TO THE GALAPAGOS ISLANDS—EXPERIMENTS MADE WITH CAPTAIN KATER'S PENDULUM—TERRAPINS OR LAND TORTOISES.

THE manner in which we proceeded down the river is so curious, and, as far as I know, so rare, that I shall attempt to make it intelligible even to readers who are not nautical.

In the navigation of rivers which have many windings and shallow places, the chief danger is, that the tide will force the ship either on the banks or on some shoal lying in the stream: there is a risk of this even when under all sail, and with a good breeze of wind; for the tide sometimes runs so rapidly and irregularly as to hustle her on shore, before the sails can be made to act. When the wind is blowing faintly, and, at the same time, not quite fair, the danger of this happening is much increased. On such occasions, instead of sailing in the usual manner, with the ship's head foremost, no sails whatever are set, and the stern, instead of the bow, is made to go first, an operation technically called Kedging.

If the anchor by which a vessel is riding in a

tide's-way be raised off the ground, she will, of course, immediately begin to drift along with the stream, and most probably soon run aground. The ship, it must be observed, when under these circumstances, and with no sail set, can make no progress through the water, but must drift along with it like a log; consequently the rudder will have no effect in directing her course, and she will be left entirely at the mercy of the tide. The operation of kedging is a device to produce a relative motion between the ship and the water, in order to bring the directing power of the rudder into action. This object is accomplished by allowing the anchor to trail along, instead of being lifted entirely off the ground, as in the first supposition. It is known practically, that the degree of firmness with which an anchor holds the ground depends, within certain limits, upon its remoteness from the ship. When the anchor lies on the ground immediately under the ship's bows, and the cable is vertical, it has little or no hold; but when there is much cable out, the anchor fixes itself in the bottom, and cannot without difficulty be dragged out of its place. In the operation of kedging, the cable is hove, or drawn in, till nearly in an upright position; this immediately loosens the hold of the anchor, which then begins to trail along the ground, by the action of the tide pressing against the ship. If the anchor ceases altogether to hold, the vessel will, of course, move entirely along with the tide, and the rudder will become useless. However, if the anchor be not quite lifted off the ground, but be merely allowed to drag along, it is evident that the ship, thus clogged, will accompany the tide reluctantly, and the stream will in part run past her; and thus a relative motion

between the vessel and the water being produced, a steering power will be communicated to the rudder.

In our case, the tide was running three miles an hour; and had the anchor been lifted wholly off the ground, we must have been borne past the shore exactly at that rate; but by allowing it to drag along the ground, a friction was produced, by which the ship was retarded one mile an hour; and she was therefore actually carried down the stream at the rate of only two miles, while the remaining one mile of tide ran past, and allowed of her being steered: so that, in point of fact, the ship became as much under the command of the rudder as if she had been under sail, and going at the rate of one mile an hour through the water.

This power of steering enabled the pilot to thread his way, stern foremost, amongst the shoals, and to avoid the angles of the sand-banks; for, by turning the ship's head one way or the other, the tide was made to act obliquely on the opposite bow, and thus she was easily made to cross over from bank to bank, in a zig-zag direction. It sometimes happened, that with every care the pilot found himself caught by some eddy of the tide, which threatened to carry him on a shoal: when this took place, a few fathoms of the cable were permitted to run out, which in an instant allowed the anchor to fix itself in the ground, and consequently the ship became motionless. By now placing the rudder in the proper position, the tide was soon made to act on one bow; the ship was sheered over, as it is called, clear of the danger; and the cable being again drawn in, the anchor dragged along as before. The operation of kedging, as may

be conceived, requires the most constant vigilance, and is full of interest, though rather a slow mode of proceeding; for it cost us all that night, and the whole of the next day and night, to retrace the ground which we formerly had gone over in ten hours.

We had by means of this delay an opportunity of seeing the country by day-light; but except at a few chance openings, the distant view was completely shut out by the dense nature of the forest on both banks of the stream.

On reaching the entrance of the river, we fell in with two boats belonging to the United States' ship *Constellation*, proceeding to Guayaquil. This frigate's draft of water was so great, that the pilots could not undertake to carry her over the shoals, unless she were lightened by the removal of her guns. As this could not be done readily, the captain and a party of his officers had determined to go up in their boats. We were happy to afford them a resting place and refreshment, before their long row, in a dreadfully hot day.

The accidents of a similar course of service had thrown the *Constellation* and the *Conway* frequently together, during the last year; and the intercourse which naturally sprung up in consequence, had established an esteem and friendship, which made such a rencontre a source of general satisfaction. We learned from our American friends, that they also expected to visit the coast of Mexico, for which we were bound, and we rejoiced at the prospect of again falling in with them. Something, however, interfered to alter their plans, for we never had the pleasure of meeting them again.

We finally left the river and the Bay of Guayaquil on the morning of the 30th of December. It was no small mortification to us not to have seen Chimborazo, the highest mountain of all the Andes. It was covered with clouds, in the most provoking manner, during the whole of the eight days we had been considerably within the distance at which it is easily discernible in clear weather.

From Guayaquil we stretched off to the westward to the Galapagos, an uninhabited group of volcanic islands, scattered along the equator, at the distance of two hundred leagues from the mainland.

As this is a place of resort for the South Sea whaling ships, I called there to see whether any assistance was required by that important branch of the British shipping interests. But we fell in with only two ships, at one of the most southern islands of the group; after which we proceeded to an island thirty miles north of the line, where I remained a few days to make some experiments with an invariable pendulum of Captain Kater's construction.

I had intended to have made these experiments on a spot lying exactly under the equator, but when we got amongst the islands, a strong current set us so far to leeward in the course of the night before we were aware of its influence, that I found it impossible to regain the lost ground, at least without spending more time than my orders admitted of, and I therefore made for the nearest anchorage within reach.

The spot chosen for the experiments lies near the extremity of a point of land running into the sea, at the south end of the Earl of Abingdon Island,

and forms the western side of a small bay about a mile across. This point is part of an ancient stream of lava which has flowed down the side of a peaked mountain, between two and three miles distant from the station, in a direction nearly north, and about two thousand feet high. The peak slopes rapidly at first, forming a tolerably steep cone, but terminated by a broad and gently inclined base of a mile and a half. The mountain is studded on every side with craters, or mouths, from whence, at different periods, streams of lava have issued, and running far into the sea, have formed projecting points, such as that on which we fixed our station. The western face of the island presents a cliff nearly perpendicular, and not less than a thousand feet high; it exhibits the rude stratification of lava, tuffa, and ashes, which characterises the fracture of ancient volcanic mountains.

Abingdon Island is ten or twelve miles in length, the north end being a series of long, low, and very rugged streams of lava; the peak standing about one-third of the whole length from the southern extreme. The rock at different places not far from the station, was found to be full of caverns, into which the tide flowed and ebbed through subterranean channels, the outer crust of the stream having, as frequently happens, served as a pipe to conduct the lava off. It is therefore probable that our foundation may not have been the solid rock; a circumstance which, taken along with the general hollow nature of volcanic districts, and the deepness of the surrounding ocean, renders these experiments not so fit to be compared with those made in England, as with others made on a similar volcanic soil.

It was greatly to be regretted that our time was too limited to allow of our engaging in a fresh series, either at the same island, or on some other lying near the equator: the service upon which the Conway was employed rendering it necessary that our stay should not be longer at the Galapagos than the 16th of January. But as we anchored at Abingdon's Island on the 7th at noon, there remained barely nine complete days in which everything was to be done. We had to search for a landing-place, which occupied some considerable time; to decide upon a station; to rig our tents; to build the Observatory; then to land the instruments and set them up; and, as we had no time for trials and alterations, everything required to be permanently fixed at once. We were fortunate in weather during the first two days, when our things were all lying about, and our habitations ill assorted; but on the third night it rained hard, and the water, which trickled through the canvass, caused us some discomfort, although we fortunately succeeded in sheltering the instruments. The heat, during the day, was not only oppressive at the time, but very exhausting in its effects; and at night, although the thermometer never fell lower than 73° , the feeling of cold, owing to the transition from 93° , to which it sometimes rose in the day, was very disagreeable.

It was with reluctance that I left the neighbourhood of the equator, without having made more numerous and varied, and, consequently, less exceptionable observations on the length of the pendulum. It would, above all, have been desirable to have swung it at stations whose geological character more nearly resembled that of England, where Cap-

tain Kater's experiments were performed. Thus, the results obtained at the Galapagos, though very curious in themselves, are not so valuable for comparison with those made in this country. The time may come, however, when they may be more useful; that is to say, should experiments be made with the pendulum at stations remote from the Galapagos, but resembling them in insular situation, in size, and in geological character; such as the Azores, the Canaries, St Helena, the Isle of France, and various other stations amongst the eastern islands of the Indian and the Pacific Oceans. The advantage of having it swung at the Cape of Good Hope, and especially at the Falkland Islands, (which lie in the correspondent latitude to that of London,) and at various other stations on the mainland, or on large islands, is still more obvious.

The length of the seconds pendulum at the Galapagos, as determined by our experiments, is 39,01717 inches, and the ellipticity, or compression of the earth, is expressed by the fraction $\frac{1}{285}$; where the numerator expresses the difference between the equatorial and polar diameters of the earth, and the denominator the length of the diameter at the equator.

The details of these experiments have been already published in the Philosophical Transactions for 1823; and a general abstract is given in the Appendix to these volumes, No. III.

We had no time to survey these islands, a service much required, since few, if any of them, are yet properly laid down on our charts. They are in general barren; but some of the highest have a stunted brushwood, and all of them are covered with the prickly pear-tree, upon which a large spe-

cies of land-tortoise lives and thrives in a wonderful manner. These animals grow to a great size, weighing sometimes several hundred pounds: they are excellent eating, and we laid in a stock which lasted the ship's company for many weeks.

The most accurate and full account of these curious animals which I have anywhere seen, is contained in a very amusing book, Delano's *Voyages and Travels*, printed at Boston, in 1807. From the fidelity with which such of their habits as we had an opportunity of observing, are described, I am satisfied with the correctness of the whole picture. We took some on board, which lived for many months, but none of them survived the cold weather off Cape Horn. I preserved one in a cask of spirits, and it may now be seen in the Museum of the College at Edinburgh: It is about the medium size. Captain Delano says,—“The Terapin, or as it is sometimes called, the Land-Tortoise, that is found at the Galapagos Islands, is by far the largest, best, and most numerous, of any place I ever visited. Some of the largest weigh three or four hundred pounds; but their common size is between fifty and one hundred pounds. Their shape is somewhat similar to that of our small land-tortoise, which is found upon the upland, and is, like it, high and round on the back. They have a very long neck, which, together with their head, has a disagreeable appearance, very much resembling a large serpent. I have seen them with necks between two and three feet long, and when they saw anything that was new to them, or met each other, they would raise their heads as high as they could, their necks being nearly vertical, and advance with their mouths wide

open, appearing to be the most spiteful of any reptile whatever. Sometimes two of them would come up to each other in that manner, so near as almost to touch, and stand in that position for two or three minutes, appearing so angry, that their mouths, heads, and necks appeared to quiver with passion, when, by the least touch of a stick against their necks or heads, they would shrink back in an instant, and draw their necks, heads, and legs into their shells. This is the only quick motion I ever saw them perform. I was put in the same kind of fear that is felt at the sight or near approach of a snake, at the first one I saw, which was very large. I was alone at the time, and he stretched himself as high as he could, opened his mouth, and advanced towards me. His body was raised more than a foot from the ground, his head turned forward in the manner of a snake in the act of biting, and raised two feet and a half above its body. I had a musket in my hand at the time, and when he advanced near enough to reach him with it, I held the muzzle out so that he hit his neck against it, at the touch of which he dropt himself upon the ground, and instantly secured all his limbs within his shell. They are perfectly harmless, as much so as any animal I know of, notwithstanding their threatening appearance. They have no teeth, and of course they cannot bite very hard. They take their food into their mouths by the assistance of the sharp edge of the upper and under jaw, which shut together, one a little within the other, so as to nip grass, or any flowers, berries, or shrubbery, the only food they eat.

“ Those who have seen the elephant, have seen the exact resemblance of the leg and foot of a ter-

rapin. I have thought that I could discover some faint resemblance to that animal in sagacity. They are very prudent in taking care of themselves and their eggs, and in the manner of securing them in their nests; and I have observed on board my own ship, as well as others, that they can easily be taught to go to any place on the deck, which may be wished for them to be constantly kept in. The method to effect this is, by whipping them with a small line when they are out of place, and to take them up and carry them to the place assigned for them; which, being repeated a few times, will bring them into the practice of going themselves, by being whipped when they are out of their place. They can be taught to eat on board a ship, as well as a sheep, or a goat; and will live for a long time, if there is proper food provided for them. This I always took care to do, when in a place where I could procure it. The most suitable to take on board a ship, is prickly pear-trees; the trunk of which is a soft, pithy substance, of a sweetish taste, and full of juice. Sometimes I procured grass for them. Either of these being strewed on the quarter-deck, the pear-tree being cut fine, would immediately entice them to come from all parts of the deck to it; and they would eat in their way, as well as any domestic animal. I have known them live several months without food; but they always, in that case, grow lighter, and their fat diminishes, as common sense teaches, notwithstanding some writers have asserted to the contrary. If food will fatten animals, to go without it will make them lean.

“ I carried at one time from James’s Island, three hundred very good terrapins to the Island of Massa

Fuero ; and there landed more than one-half of them, after having them sixty days on board my ship. Half of the number landed, died as soon as they took food. This was owing to their stomachs having got so weak and out of tone, that they could not digest it. As soon as they eat any grass after landing, they would froth at the mouth, and appeared to be in a state of insanity, and died in the course of a day or two. This satisfied me that they were in some sort like other animals, and only differed from them by being slower in their motions ; and that it takes a longer time to produce an effect upon their system, than upon that of other creatures. Those that survived the shock which was occasioned by this sudden transition from total abstinence to that of abundance, soon became tranquil, and appeared to be as healthy and as contented with the climate, as when they were at their native place ; and they would probably have lived as long, had they not been killed for food. Their flesh, without exception, is of as sweet and pleasant a flavour as any that I ever eat. It was common to take out of one of them, ten or twelve pounds of fat, when they were opened, besides what was necessary to cook them with. This was as yellow as our best butter, and of a sweeter flavour than hog's lard. They are the slowest in their motions of any animal I ever saw, except the sloth. They are remarkable for their strength ; one of them would bear a man's weight on his back and walk with him. I have seen them at one or two other places only. One instance was, those brought from Madagascar to the Isle of France ; but they were far inferior in size, had longer legs, and were much more ugly in their looks, than those of the

Galapagos Islands. I think I have likewise seen them at some of the Oriental Islands which I have visited.

“ I have been more particular in describing the terrapin, than I otherwise should have been, had it not been for the many vague accounts given of it by some writers, and the incorrect statement made of the country in which it is to be found. It has been publicly said, that terrapins are common in China, which, I am confident, is incorrect ; for I have carried them to Canton at two different times, and every Chinese who came on board my ship, was particularly curious in inspecting and asking questions about them ; and not one, I am positive, had any knowledge of the animal before.”

I subjoin the measurement of one terrapin, weighing 190 lbs.

Dimensions of a Terrapin, weighing 190 lbs.

	Inches.
Length of upper shell,	43
Breadth of ditto,	44 $\frac{1}{4}$
Length of belly shell,	29
Breadth of ditto,	26
Length of the head,	6 $\frac{1}{2}$
Greatest breadth,	4 $\frac{1}{4}$
Ditto depth,	3 $\frac{3}{4}$
Greatest extent of upper and lower mandible,	3 $\frac{3}{4}$
Distance of eye from nose,	1 $\frac{1}{2}$
Length of neck,	31
Circumference about the middle of the neck,	9
From fore part of upper shell to the fore part of belly shell,	11 $\frac{1}{2}$

	Inches.
From after-part of upper shell to the after-part of belly shell,	7
Length of fore leg and thigh,	21 $\frac{1}{2}$
Circumference above the foot,	8 $\frac{3}{4}$
Length of hind leg and thigh,	24
Circumference above the foot,	16
Length of tail,	8 $\frac{1}{2}$
Depth of upper shell when scooped out,	17
Width inside,	27
Number of pieces composing the disk,	13
Number of pieces in the margin,	24

When alive, weighed 190 lbs.

Quantity fit for use, 84

Loss, 106

Having finished our experiments, we made sail on the 16th of January 1822 for Panama, but owing to the light winds and calms which prevail in the bay of that name, it was not till the 29th that we came in sight of the coast of Mexico, about one hundred and twenty miles to the westward of Panama.

CHAPTER XXXIX.

PANAMA.

ARRIVAL AT PANAMA—HOSPITALITY OF THE INHABITANTS—NEGROES SPEAKING ENGLISH—PACIFIC REVOLUTION OF THIS CITY—MOONLIGHT GAMES AND MUSIC OF THE NEGRO SLAVES.

WE anchored in Panama Roads at nine in the morning of the 2d of February 1822, and as no one on board was acquainted with the place, a fisherman was called alongside, who undertook to pilot our boat through the reefs to the landing-place. On rowing round the angle of the fortifications encircling the town, which is built on a rocky peninsula, we found ourselves in a beautiful little bay, strongly marked with the peculiar features of the torrid zone. The beach was fringed with plantain and banana trees, growing amongst oranges, figs, and limes, and numberless rich shrubs, shaded by the tamarind tree rising higher than any of the others, excepting the tall, graceful cocoa-nut, with its feathery top and naked stem. Close to the ground, and almost hid by the foliage, were clustered groups of cane-built huts, thatched with palm-leaves; and on the sandy beach before them lay the canoes of the natives, hollowed out of sin-

gle trees ; while others were paddling across the bay, or skimming along under a mat sail, hoisted on a bamboo mast ; all contributing, with the clear sky and hot weather, to give a decidedly tropical aspect to the scene.

Our surprise on landing was considerable, when we heard the negroes and negresses who crowded the wharf all speaking English, with a strong accent, which we recognised as that of the West Indies ; a peculiarity acquired from the constant intercourse kept up, across the isthmus, with Jamaica. Most of the natives also spoke English more or less corrupted. Innumerable other trivial circumstances of dress and appearance, and manners, conspired to make us feel that we had left those countries purely Spanish, and more effectually excluded by the ancient policy from foreign intercourse.

We had no letters of introduction, but this appeared to be immaterial, for we had scarcely left the boat before a gentleman, a native of the place, but speaking English perfectly, introduced himself, and made us an offer of his house, and his best services during our stay. This ready hospitality would surprise a stranger landing at a European port, but in distant regions, where few ships of war are seen, the officers are always received with attention and confidence : for as they can have no views of a commercial nature, they are at once admitted into society as persons quite disinterested. This cordial reception, which is universal in every part of the world remote from our own shores, independently of being most agreeable, is also highly convenient ; and compensates, in a great measure, to naval travellers for the interrup-

tions to which they are always liable in their researches, by the calls of professional duty.

Our hospitable friend being connected with the West Indies, as most of the Panama houses are, put into our hands a file of newspapers, principally Jamaica Gazettes; and as we had not seen an English paper for many months, nothing could be more acceptable. But upon examining them, we discovered, that most of the news they contained came to us trebly distilled, via Jamaica, via New York, via Liverpool from London. In some of these papers we saw our own ship mentioned; but in the several transfers which the reports had undergone, from one paper to another, could scarcely recognise our own proceedings.

We had been led to expect that Panama was still under the Spaniards, and the first indication we saw of the contrary was the flag of another nation flying on the fort. We were by this time, indeed, become so familiar with revolutions, and had learned to consider every government in that country so unsettled, that we ceased to be much surprised by any such change, however sudden. It appeared that the Spaniards, a few weeks before, had detached nearly all the troops of the garrison to reinforce the army at Quito, and the inhabitants being thus left to themselves, could not resist the temptation of imitating the example of the surrounding states, and declaring themselves independent. They were not, however, quite so extravagant as to constitute themselves into a free and separate state, like the town of Guayaquil; but chose, more wisely, to place themselves under one of their powerful neighbours, Mexico or Colombia. After considerable debating on this point, it was decided by

the inhabitants to claim the protection of Bolivar, to whose country, Colombia, they were nearer, and with which they were likely to hold more useful intercourse than with Mexico.

No place, perhaps, in all the Spanish Transatlantic possessions, suffered so little from the erroneous systems of the mother-country as Panama; partly in consequence of the constant intercourse which it maintained with the West India islands, and partly from its being the port through which European goods were formerly made to pass across the isthmus to Peru, and to the south coast of Mexico. This degree of intercourse and business gave it an importance, and afforded it the means of acquiring wealth, which the rigorous nature of the colonial system allowed to no other place in that country. The transition, therefore, which now took place from the Spanish rule to a state of independence, was very easy, and there being no motive to violence, it was unaccompanied by any extravagance on the part of the people. Thus Panama, under similar political circumstances with Lima and Guayaquil, was placed in singular contrast to both those cities. So gently, indeed, was the Revolution brought about, that the inhabitants did not even change their Governor, but left him the option either of continuing in his old situation, or of retiring. When the alternative was put to him, he shrugged his shoulders—whiffed his cigar for a few minutes—and replied, that he had no sort of objection to remain: upon which the inhabitants deliberately hauled down the flag of Spain, hoisted that of Bolivar in its place, proclaimed a free trade, and let all other things go on as before.

But there were many, it was said, who did not

rejoice so much in the change, as good patriots ought to have done ; a piece of political scandal, however, which attached chiefly to the ladies, who are, in general, vastly more enthusiastic in the cause of independence than the men. The real truth is, Panama had been garrisoned by a very handsome Spanish regiment for some years ; and the abstract feeling of freedom, consequent upon the departure of the troops, was considered, it was said, by the fair Panamanians, a very poor compensation for the gentle military despotism in which they had been lately held.

I waited upon the governor to breakfast, and not knowing that he had been in power during the Spanish times, I said, as usual, something congratulatory upon the improvements likely to result from the recent changes. I saw, with surprise, a cloud pass across his brow ; but he soon recovered, and in a dry sarcastic tone said, he hoped it would be a change for the better.

In the course of the morning, we became acquainted with many of the merchants of the place, who surprised us a good deal, and somewhat piqued us, by their total indifference about the South American news which we were so full of. They declared they could never manage to understand the different accounts from the south : that names, places, and circumstances, were all jumbled together ; and, in short, treated the whole subject very much in the way it used to be received in England a few years ago. They were, in fact, far more occupied with North American, English, and West Indian topics, and, above all, with the little matters which concerned their own town, than with the momentous affairs affecting the whole

southern continent; upon which, however, their own prosperity must eventually depend.

It was by no means easy to get in return the news we wanted, even from people who had recently been in England, or in Jamaica, for they had no idea of the extent of our ignorance, made no allowance for our dates, and never dreamed of telling us anything, not new to themselves; forgetting, that to us who had not seen an English paper for half a year, everything was new. And they were just as much surprised at our indifference about Jamaica and New York intelligence, as we had been to find them careless about Lima and Valparaiso. When in reading the papers we came to some allusion, and asked what it meant, the answer generally was, "Oh! I thought you must of course have heard of that long ago;" and so on with the rest, till at length we became completely confused and tired of asking questions; and were glad to relapse into our wonted abstraction from all that was distant, and turn again cheerfully to take an exclusive interest in what was passing immediately before us.

As I had been kept out of bed for two nights, attending to the pilotage of the ship, I was glad to retire at an early hour; but I could get no sleep for the noise in the Plaza, or great square, before the windows of my room. After some time spent in vain endeavours to disregard the clamour, I rose and sat at the window, to discover if I could what was going on. It was a bright moon-light night, and the grass which had been allowed to grow up in the centre of the square was covered with parties of negro slaves, some seated and others dancing in great circles, to the sound of rude music made by

striking a cocoa-nut shell with a short stick; while the whole party, dancers as well as sitters, joined in a song with very loud but not discordant voices. It appeared to be some festival of their own, which they had assembled to celebrate in this way.

I was half disappointed, at discovering nothing appropriate or plaintive in their music; on the contrary, it was extremely lively, and seemed the result of light-hearted mirth. Many of the groups were singing, not without taste and spirit, a patriotic song of the day, originally composed at Buenos Ayres, and long well known in the independent states of the south, though only recently imported into the isthmus. The burden of the song was Libertad! Libertad! Libertad! but I conceive not one of these wretches attached the slightest meaning to the words, but repeated them merely from their accordance with the music. While listening, however, to these slaves singing in praise of freedom, it was difficult not to believe that some portion of the sentiment must go along with the music; yet I believe it was quite otherwise, and that the animation with which they sung, was due entirely to the lively character of the song itself, and its happening to be the fashionable air of the day. There was something discordant to the feelings in all this; and it was painful to hear these poor people singing in praise of that liberty acquired by their masters, from whose thoughts nothing certainly was farther removed than the idea of extending the same boon to their slaves.

CHAPTER XL.

DESCRIPTION OF SOME OLD RUINS AT PANAMA—
PROJECT OF OPENING A COMMUNICATION BE-
TWEEN THE GULPH OF MEXICO AND THE PACIFIC
—TROOPS OF BOLIVAR.

EARLY in the morning of the 3d of February, I sallied forth, as one would do at Rome, to view some celebrated ruins—a strange and unwonted sight in America. Panama has flourished for a long series of years, but its sun has at last set with the golden flag of Spain, the signal of exclusion wherever it waved. As long as the ports of the Pacific were closed against all commerce, except what it pleased the Council of the Indies to measure thriftily out across the isthmus, Panama being the sole port of transit, prospered greatly; but now that the navigation of Cape Horn is rendered easy and secure, and is free to the whole world except to the short-sighted Spaniards themselves, innumerable vessels contrive to search out every nook in the coast, and supply it with goods infinitely cheaper than Panama can furnish them. The situation certainly possesses advantages, which, in process of time, may be turned to great commercial account, and Panama will probably become greater than ever: but such greatness must now be shared with many competitors; and its pre-emi-

nence can never be acknowledged again ; because the policy by which it was aggrandized at the expense of other cities cannot by any possibility be revived. If ever Panama recovers its former wealth, it must be by fair and active competition, and she may then, without injustice as heretofore, indulge in that luxurious and tasteful splendour which displays itself in fine public edifices, and of which there remain more genuine traces here than even in Lima, " the city of the kings," with all its tinsel and pretension.

The finest ruin at Panama is that of the Jesuits' College, a large and beautiful edifice, which, however, was never finished ; yet the melancholy interest which it inspires is rather augmented than diminished by that circumstance ; for it reminds us not only of the destruction of the great order which founded it, but also of the total decay of Spanish taste and wealth, which accompanied that event. The college is a large quadrangular building, which had been carried to the height of two stories, and was probably to have been surmounted by a third. The ornamental part of the building is in a pure and simple taste : neat cornices, with high mouldings, are carried round the work above and below the windows, which are very numerous, and some of them crossed by Gothic mullions ; the corners also, and the stones over the doors, are relieved by mouldings. From each angle of the building, and from the middle of each side, there projects a solid square tower, resting upon arches based on the ground, through which carriages might drive. Taken as a whole, it has a compact, massy, and graceful appearance ; not dissimilar in general effect to that of a Grecian temple, though totally

different in its structure. The details are executed with neatness and delicacy, but there is no frippery about the ornamental carving, and every part appears to contribute to the grandeur of the whole. As the work has been carried on to the same height all round, no part of the walls is higher than the rest; and although the court is thickly overgrown with trees and shrubs, and the walls are matted with creepers and brilliant flowers, the edifice cannot, in strictness, be called a ruin, since every stone retains its original place.

In a field a little beyond the square, on the side opposite to the college, stand the remains of a church and convent, which is reached, not without difficulty, by wading breast-high through a field of weeds and flowers, which, in this climate, shoot up with wonderful quickness. In the course of this scramble, I came unexpectedly upon a gorgeous bath, by the side of a dried-up marble fountain. It is not now easy to enter the convent, owing to the piles of rubbish and thick foliage which have usurped the place of the inhabitants. The building seems to have been destroyed by fire. Along the uneven ridge of the remaining wall, has sprung up spontaneously a row of trees, giving a singular, and rather a wild and unnatural, appearance to this immense ruin.

In some districts of the town of Panama, whole streets are allowed to fall into neglect; grass has grown over most parts of the pavement, and even the military works are crumbling fast to decay. Everything, in short, tells the same lamentable story of former splendour, and of present poverty. The desolation was, in some respects, as complete as that of Conception, described in Chapter XXIV.

The slow, though sure, results of national decline, are visible in one place—the rapid effect of war in the other—in both the withering consequences of misgovernment are distinctly to be traced.

On my return, I fell in with one of the merchants of the place, who insisted upon taking me home with him to breakfast. His wife did the honours, and made tea in the English fashion, but she did not carry her complaisance so far as to drink any of it herself. Her husband was a very intelligent person, who had studied particularly the question of cutting a passage across the isthmus; and had actually examined several of the proposed lines. He seemed to consider the passage at the narrowest point, which on the map looks so tempting, as by no means the best. In the meantime, he was of opinion, that an immense and immediate advantage would be gained by making a good road from sea to sea across the isthmus; which might be done very easily, and at an expense incalculably less than a canal could be cut, under the most favourable circumstances, while many of the advantages of a canal would at once be gained by this road. The question of opening a communication has been ably discussed by Humboldt, in his *New Spain*, Vol. I., and subsequently by Mr Robinson, in Chapter XIII. of his excellent account of the Mexican Revolution; but I had no opportunity of examining in person any of the points alluded to by these writers, or of gaining any new information on the subject.

During the morning, it was much too hot to move about with any comfort, but towards sunset, all the world strolled about to enjoy the delightful air of the brief twilight, along some charming walks

in the woods, beyond the suburbs, the scenery about which was of the richest description of tropical beauty. The night closed in upon us with a precipitancy unknown in higher latitudes ; but before we reached the drawbridge at the entrance of the town, the moon had risen, and the landscape became even more beautiful than before. It is in moon-light evenings that the climate of the tropics is most delightful. In the morning the air is somewhat chill—in the middle of the day, it is impossible to stir out of doors—but after the sun has set, the full luxury and enjoyment of the climate are felt.

About a fortnight before our arrival, a considerable detachment of Bolivar's troops had entered the town ; they had formed a part of the army so long engaged in the dreadful revolutionary wars of Venezuela, and especially in that province of it called Caracas, between the Royalists and Patriots. I made acquaintance with several English officers belonging to this force, who had gone through the whole of the campaigns. Their accounts, though interesting in the highest degree, do not belong to the present subject, and are, I believe, already generally known to the public. Whatever we may think of the prudence of people voluntarily engaging in such enterprizes, it is impossible not to respect the persevering fortitude with which they have endured privations and hardships of the most overpowering nature, and far exceeding anything known in regular services. In the streets, nothing was to be seen but Colombian officers and soldiers enjoying a partial respite from their hard labours ; for I observed, that the severe discipline which Bolivar has found it so advantageous to establish, was still unrelaxed ; and that drilling parties, and

frequent mustering and exercising of the troops, were never intermitted: the town, in short, was kept in a state of military bustle from morning till night.

Having occasion to send despatches to the Commander-in-Chief on the Jamaica station, I found no difficulty in procuring means of doing so, as there is a constant communication, both by merchant-ships and men-of-war, from Chagres and Porto Bello with the West Indian Islands. To such an extent is this carried, and such is the superior importance of their West Indian intercourse, that every one at Panama spoke, not as if residing on the shores of the Pacific, but as if he had been actually living on the coast of the Gulf of Mexico. One gentleman said to me, that the Africaine frigate had been here ten days ago; an assertion which surprised me greatly, as I had reason to know that the ship in question had not doubled Cape Horn. On stating this to him, he laughed, and said he meant to speak of Porto Bello, on the other side of the isthmus; with the arrivals and departures of which he was much more familiar than with those of his own port, in which he had, in fact, little or no mercantile concern connected with the South Sea.

CHAPTER XLI.

MEXICO.

VISIT TO THE ISLAND OF TABOGA—TROPICAL SCENERY—PEAKS OF THE ANDES NEAR GUATIMALA—ESTIMATION OF THEIR DISTANCE AND HEIGHT—SEVERE GALE OF WIND.

ON the evening of the 4th of February, we took our leave of Panama, and proceeded to recruit our stock of water at the little island of Taboga, which lies about nine miles to the southward. The anchorage is in a snug cove, opposite to a romantic little village, the huts of which, built of wattled canes, are so completely hid by the screen of trees which skirts the beach, that they can scarcely be seen from the anchoring-place, though not two hundred yards off; but the walls of a neat white-washed church, built on a grassy knoll, rise above the cocoa-nut-trees, and disclose the situation of the village. The stream from which vessels fill their water-casks is nearly as invisible as the houses; the whole island, indeed, is so thickly wooded, and the ground so crowded with shrubs and thick grass, that nothing can at first be discovered but a solid mass of brilliant foliage.

As the days were intolerably hot, I determined to water the ship by night; and she was according-

ly moved as close to the shore as possible. The sea in this corner of the cove being quite smooth, the boats rowed to and from the shore all night with perfect ease; and the moon being only one day short of the full, afforded ample light to work by. The casks were rolled along a path, to the side of a natural basin, which received the stream as it leaped over the edge of a rock, closely shrouded by creepers and flowers interlaced into one another, and forming a canopy over the pool, from which our people lifted out the water with buckets. This spot was lighted only by a few chance rays of the moon, which found their way through the broken skreen of cocoa-nut leaves, and spreckled the ground here and there. Through a long avenue in the woods, we could just discover the village, with many groups of the inhabitants sleeping before their doors on mats spread in the moon-light. The scene was tranquil and beautiful, and in the highest degree characteristic of the climate and country.

I discovered next morning, from the Alcalde or governor, that a very unfavourable impression of the English had been left on the minds of the inhabitants of this island, by the conduct of a ruffian, said to be an Englishman, commanding a Chilian privateer; who, some time previously, had attacked the village, robbed it of all it possessed, wantonly destroyed the church, and ill-treated the inhabitants. He pretended to act under the authority of the Chilian government, but it is now well known that he had no right to hoist the flag of that country, by which he had been disowned: in short, he was a pirate.

I was desirous to do everything in my power to regain the good opiuiion of the islanders; and was

much pleased to find that no offence had been given to the villagers by our people during the night ; but, on the contrary, that the inhabitants were delighted with the prices they had got for their fruit and vegetables, and with the treatment they had received on board.

I went, with several of the officers, in the course of the morning, to call upon the Alcalde and his family. He had expected our visit, and had invited a party of his friends to meet us. I took the liberty to offer each of the women some European trinket, from a collection made at Lima, in anticipation of such incidents. Nothing could be better bestowed ; and after sitting for half an hour, we rose to take leave. The whole party, however, insisted on accompanying us to the beach, where we were received by the rest of the natives, who had all left the village, and assembled to bid us good-bye. They were a little surprised, but seemed pleased when I invited the governor to accompany me on board ; which he readily agreed to. He was received with all attention, shown round the ship, and finally complimented with a salute of a few guns. His satisfaction, and that of his attendants, at this honour, and, indeed, of the whole inhabitants, many of whom had come off in their canoes, was very manifest, and exactly what I had hoped to produce. The occasion, indeed, was not a very important one ; but it appeared, nevertheless, of some consequence, in so remote a country, to restore the English to the good-will of these injured and unoffending people. I did not, therefore, stop to inquire, whether or not, in strict etiquette, the governor was entitled to a salute of three or four guns ; but

I am quite sure the object was effectually answered by this noisy compliment, so dear to the whole race which inhabit the coasts of the New World.

The watering of the ship was completed in the course of the day, after which we tripped our anchor, and made all sail out of the bay, on our course to Acapulco, which lies on the south-west coast of Mexico, at the distance of fifteen hundred miles from Panama. There are two ways of making this passage, one by going out to sea far from the land; the other by creeping, as it is called, along-shore. I preferred the latter method as the most certain, and as one, which gave an opportunity of seeing the country, and of making occasional observations on remarkable points of the Andes, the great chain of which stretches along the south-west coast of Mexico, precisely in the manner it does along the west shore of South America.

On the 23d of February, eighteen days after leaving Panama, when we had reached a point a little to the northward of Guatemala, we discovered two magnificent conical-shaped mountains towering above the clouds. So great was their altitude, that we kept them in sight for several days, and by making observations upon them at different stations, we were enabled to compute their distances, and, in a rough manner, their elevation also. On the 23d, the western peak was distant eighty-eight miles, and on the 24th, one hundred and five. The height deduced from the first day's observations was 14,196 feet; and by the second day's, 15,110: the mean, being 14,653, is probably within a thousand feet of the truth; being somewhat more than two thousand feet higher than the Peak of Tene-

rise. The height of the eastern mountain, by the first day's observations, was 14,409 feet, and, by the second, it was 15,382, the mean being 14,895. How far they may have preserved their peaked shape lower down, we do not know, nor can we say anything of the lower ranges from whence they took their rise, since our distance was so great, that the curvature of the earth hid from our view not only their bases, but a considerable portion of their whole altitude. On the first day, 5273 feet were concealed; and on the second day, no less than 7730 feet of these mountains, together with the whole of the coast ridge, were actually sunk below the horizon. Owing to the great distance, it was only at a certain hour of the day that these mountains could be seen at all. They came first in sight about forty minutes before the sun rose, and remained visible for about thirty minutes after it was above the horizon. On first coming in sight, their outline was sharp and clear, but it became gradually less and less so as the light increased. There was something very striking in the majestic way in which they gradually made their appearance, as the night yielded to the dawn, and in the mysterious manner in which they slowly melted away, and at length vanished totally from our view in the broad daylight.

As it is rather an interesting problem to determine the height of distant mountains observed from sea, I give the necessary data for the computation.

Data for computing the distance and height of the peaks near Guatemala, in Mexico, 23d of February.

Lat. by mer. alt. of Antares, after the day broke,

and the horizon consequently perfectly sharp and distinct.

23d, = $14^{\circ} 23'$ N. long. by chron. $93^{\circ} 7'$ W.

24th, = $15 \quad 3$ N. $93 \quad 38$ W.

Whence the base stretches N. $36^{\circ} 52'$ W. 50 miles long,
or = 57,53 Eng. miles.

23d, True bearing of W. peak, N. $52^{\circ} 28' 58''$ E.

Angle subtended by the two peaks, 8 10 12

23d, True bearing of E. peak, N. $60^{\circ} 39' 0''$ E.

23d, Alt. west peak observed, $1^{\circ} 15' 55''$

23d, Alt. east do. 1 6 12

Height of the observer's eye 16 feet.

Barom. 29,90. Therm. 81° .

24th, True bearing of western peak, N. $85^{\circ} 40'$ E.

Angle subtended by the peaks, 3 44

24th, True bearing of eastern peak, N. $89^{\circ} 24'$ E.

24th, Alt. west peak observed, $0^{\circ} 59' 12''$

24th, Alt. east do. 0 45 17

Height of the observer's eye 16 feet.

Barom. 29,95. Therm. 80° .

Lat. W. peak, $15^{\circ} 9' 54''$ N. long. W. peak, $92^{\circ} 3' 40''$ W.

Lat. E. peak, $15^{\circ} 4' 50''$ N. long. E. peak, $91^{\circ} 51' 24''$ W.

The bearings were determined astronomically, by measuring the angular distance between the peaks and the sun's limb, at sunrise. The altitudes

were measured separately and repeatedly by four sextants, and the mean taken.

We had now, for a very long period, been sailing about in the finest of all possible climates, without meeting a gale of wind, or encountering bad weather of any kind; and as we had not been able to obtain particular information respecting the navigation of this coast, we sailed along it with the same confidence of meeting everywhere the delightful weather we had been accustomed to. We had, as usual in such climates, all our thread-bare sails bent, our worn-out ropes rove, and were in no respect prepared to encounter storms. On the evening of the 24th of February, the sun set with astonishing splendour, but with a wild lurid appearance, which, in any other country, would have put us more upon our guard. The sun itself, when still considerably above the horizon, became of a blood-red colour, and the surrounding clouds assumed various bright tinges of a fiery character, fading into purple at the zenith: the whole sky looked more angry and threatening than anything I ever saw before. The sea was quite smooth, but dyed with a strange and unnatural kind of redness by the reflection from the sky. In spite of the notions we held of the fineness of the climate, I was made a little uneasy by such threatening appearances, and upon consulting the barometer, which, in these low latitudes, is seldom of much use, was startled by finding it had fallen considerably. This determined me immediately to shorten sail, but before it could be fully accomplished, there came on a furious gale, which split many of our sails, broke our ropes like cobwebs, and had it not been for great exertions, we might have been dismasted. At

length we got things put in proper trim to withstand the storm, which lasted with unabated violence for two days. During the greater part of the gale the wind was fair, but blowing so hard, and with so mountainous a sea, that we could make no use of it, nor show even the smallest stitch of sail, without its being instantly blown to rags.

The place where we were thus taken by surprise was near the top of the Gulf of Tecoahtepec, which lies opposite to that part of the Gulf of Mexico, between Vera Cruz and Campeachy, nearly abreast of the narrowest part of the land, and about three hundred miles to the eastward of Acapulco.

CHAPTER XLII.

WESTERN COAST OF MEXICO—ARRIVAL AT ACAPULCO—BEAUTIFUL HARBOUR—ACCOUNT OF THE INHABITANTS—WRETCHED STATE OF THE TOWN—EARTHQUAKE—DESCRIPTION OF THE METHOD OF NAVIGATING ALONG THE COAST—LAND AND SEA BREEZES DESCRIBED—ARRIVAL AT SAN BLAS.

ON the 8th of March, we anchored in Acapulco harbour, a name familiar to the memory of most people, from its being the port whence the rich Spanish galleons, of former days, took their departure, to spread the wealth of the Western over the Eastern world. It is celebrated also in Anson's delightful Voyage, and occupies a conspicuous place in the very interesting accounts of the Buccaneers; to a sailor, therefore, it is classic ground; and I cannot express the universal professional admiration excited by a sight of this celebrated port, which is, moreover, the very beau-ideal of a harbour. It is easy of access; very capacious; the water not too deep; the holding-ground good; quite free from hidden dangers; and as secure as the basin in the centre of Portsmouth dock-yard. From the interior of the harbour the sea cannot be discovered; and a stranger coming to the spot by land, would imagine he was looking over a sequestered mountain lake,

When we had reached about half way up the harbour a boat came off to us, but as soon as the officer discovered who and what we were, he rowed away again in great haste, to communicate the news. We had scarcely anchored when a barge came alongside with the governor of the town, accompanied by all the officers at the head of the different departments. As soon as the governor and his suite had severally embraced me, he made a set speech, in which he said we had long and anxiously been looked for; and that, as the Conway was the first of his Britannic Majesty's ships that had honoured the harbour of Acapulco with her presence, he considered it his duty, no less than his inclination, to waive the usual etiquette, and come on board in person to welcome our arrival. I replied in the best Castilian I could muster, to this remarkable compliment; after which he formally communicated a message he had lately received from his Serene Highness Generalissimo Don Augustin Iturbide, then at the head of the government, inviting me and all my officers to visit the capital, and placing horses and every means of travelling at our command. This was a most tempting occasion, indeed, to see the country; but it was impossible to avail ourselves of it, and we reluctantly declined the honour. The governor, after a long and cheerful visit, took his leave, assuring us, that we should be assisted by all the means the local government possessed, to complete our supplies, and to render our stay, which he entreated might be long, as agreeable as possible.

Next morning, I returned the visit of last evening, accompanied by all the officers, in imitation of the governor. We were received with the great-

est attention and kindness ; and indeed during our whole stay, nothing could exceed the active hospitality of these people, the most civil and obliging of any we met with during the voyage.

After the audience at Government-house was over, I proceeded with the purser to inquire about supplies. On the way we fell in with a young Spaniard whom I had met at Canton, in China, some years before, who at once, with the promptitude of renewed friendship, took charge of us, carried us to his house, and made us at home in a moment. Such meetings with persons one never expects to see again, and in places so remote from each other, are peculiarly interesting ; and, perhaps, as much as anything else, characteristic of a naval life. This gentleman and I had parted in China four years before ; he had gone first to Manilla, and thence sailed eastward till he reached the shores of Mexico : I had, in the meantime, proceeded round the Cape of Good Hope, and eventually to the westward by Cape Horn, till, on reaching the same spot, we came together again, after having by our united voyages circumnavigated the globe.

The appearance of the country people at Acapulco differs from that of the South Americans. Their features and colour partake somewhat of the Malay character ; their foreheads are broad and square ; their eyes small, and not deep-seated ; their cheek-bones prominent ; and their heads covered with black straight hair ; their stature about the medium standard ; their frame compact and well made. These are the country people who come to market with poultry, fruit, and vegetables, and are generally seen seated in the shade under

the verandahs of the houses, or in their own ranchas ; which are sheds made of mats loosely pinned together.

We took notice of another class, less savage in appearance than that just described, and rather more interesting ; they are the labourers and carriers of burdens employed about the town : a tall, bold-looking, strong race of men ; they wear a hat, the crown of which is raised not more than three inches above a rim of such unusual width, that it serves as an umbrella to shade the whole body. Round their neck is suspended a large flap of stiff yellow leather, reaching below the middle, and nearly meeting a pair of greaves of the same material which envelope the thigh ; the calves of the leg are in like manner wrapped round with pieces of leather tied carelessly on with a thong ; over the foot is drawn a sort of wide unlaced half-boot, which is left to float out like a wing from the ankle. These figures are striking, and highly picturesque. Their colour is a bright copper, and they probably have some intermixture of Spanish blood in their veins.

The negroes form a third class at Acapulco. They were originally imported from Africa ; but in the course of time they have become a mixed race with the Aborigines, and thus, also, may possibly partake of a slight dash of Spanish blood. The result, however, is a very fine race of men : they retain the sleek glossy skin, the dark tint of the negro, and his thick lip ; along with which we now see the smaller form, the higher forehead, prominent cheek-bone, the smaller eye, and the straight hair of the Mexicans ; together with many other mingled traits which a closer observation

would be able to discriminate, but which a stranger is merely conscious of seeing without his being able to define exactly in what the peculiarities consist. It may be remarked, that, in the Spanish Transatlantic possessions, we find a greater variety of intermixtures or crosses of the human species than are met with in Europe, or, perhaps, in any other part of the world. The tribes of Indians, in the first place, are numerous, and distinct from one another; the Spaniards themselves differ in depth of colour, and in figure, according to their several provinces; and, lastly, the African differs from that of the whole. Humboldt, in his usual distinct and satisfactory manner, (New Spain, Book II. Chap. VI.) has classed the various shades of colour resulting from the admixture of these different people.

I dined to-day with our friend the young Spaniard, and met at his house the Minister, as the chief civil authority is called, and three other gentlemen; being very nearly the whole society of Acapulco. I had been desirous of meeting these gentlemen, in order to learn something of the state of the country, but discovered, that they knew extremely little of what was going on, owing to the very confined intercourse kept up between this port and the capital, or indeed any other part of the country. The truth is, that with the exception of its splendid harbour, Acapulco is, commercially speaking, an insignificant place, and has been so ever since the days of the galleons. It is not well situated for commerce, as the country lying between it and Mexico is difficult to cross, and is not rich either in agricultural produce, or in mines. The town, at present, consists of not more than

thirty houses, with a large suburb of huts, built of reeds, wattled in open basket-work to give admission to the air. It is guarded by an extensive and formidable fortress, called the Castle of San Carlos, standing on a height, commanding the whole harbour. The inhabitants told us, when we expressed our surprise at the smallness of the town, that the greater part of it had been shaken down by an earthquake. If this be true, the people have been uncommonly careful in removing the materials, for not a trace remained, that we could see, of any ruins.

In the course of a long walk, which our party took after dinner, an earthquake was felt. We were walking slowly along, when the gentlemen stopped, and one of them seeing us look surprised at their doing so, cried out, "Temblor!" (earthquake.) A sound, like distant thunder, was then heard for about a quarter of a minute, but it was impossible to say from whence it proceeded; and, although conscious that there was something unusual in the noise, I cannot say exactly in what respect it was particular. The residents declared that they felt the tremor, but none of us were sensible of any motion. This was the fifth occasion since my arrival in the country, on which I had been present at earthquakes, without ever feeling any of them in the slightest degree.

On the 12th of March, we sailed from Acapulco for San Blas de California, so named, from its lying near that country, and in order to distinguish it from other Mexican towns of the same name. Although the distance from Acapulco to San Blas is no more than five hundred miles, it cost us sixteen days to make the passage. This

was owing to the prevalent winds of the coast at this season of the year being from the north-western quarter. The weather, however, was extremely fine, though very hot in the middle of the day. In most tropical climates, near the shore, there prevail what are called land and sea breezes, which, if properly taken advantage of, greatly assist navigation on the coasts where they are found. During certain hours of the day, the wind blows from the sea towards the shore, and during the greater part of the night, it blows from the land. The navigator, whose object is to make his way along the coast, takes advantage of these changes, by placing his ship at night-fall so close to the shore, that he may profit by the first puff of the land-wind; and afterwards steers such a course throughout the night, that, by the time the land-wind dies away, the ship shall have reached that degree of offing, or distance from the coast, which it is most advantageous to be placed in, when the sea-breeze of the next day begins. Both these winds are modified to a certain extent in their direction, by the winds which prevail on the coast, at a distance beyond the influence of these diurnal variations. Thus we found both the land and the sea-breeze always disposed to have more north-westing in them, than, in strictness, they ought to have had; that is, than they would have had in a situation where no such general cause prevailed in their neighbourhood. It was owing to this circumstance that our passage was so much retarded.

The most exact description, that I have anywhere met with, of these remarkable winds, is written by Dampier, one of the most pleasing and most faithful of voyagers; and, as the passage is

in a part of his works not generally read except by professional men, I am tempted to insert it.

“ These sea-breezes do commonly rise in the morning about nine o'clock, sometimes sooner, sometimes later ; they first approach the shore so gently, as if they were afraid to come near it, and oftentimes they make some faint breathings, and, as if not willing to offend, they make a halt, and seem ready to retire. I have waited many a time, both ashore to receive the pleasure, and at sea to take the benefit of it.

“ It comes in a fine small black curl upon the water, whereas all the sea between it and the shore, not yet reached by it, is as smooth and even as glass in comparison. In half an hour's time after it has reached the shore, it fans pretty briskly, and so increaseth, gradually, till twelve o'clock, then it is commonly strongest, and lasts so till two or three a very brisk gale ; about twelve at noon it also veers off to sea two or three points, or more in very fair weather. After three o'clock, it begins to die away again, and gradually withdraws its force till all is spent, and about five o'clock, sooner or later, according as the weather is, it is lulled asleep, and comes no more till the next morning.

“ Land-breezes are as remarkable as any winds that I have yet treated of ; they are quite contrary to the sea-breezes ; for those blow right from the shore, but the sea-breeze right in upon the shore ; and as the sea-breezes do blow in the day and rest in the night ; so, on the contrary, these do blow in the night and rest in the day, and so they do alternately succeed each other. For when the sea-breezes have performed their offices of the day, by breathing on their respective coasts, they, in the

evening, do either withdraw from the coast, or lie down to rest. Then the land-winds, whose office it is to breathe in the night, moved by the same order of Divine impulse, do rouse out of their private recesses, and gently fan the air till the next morning, and then their task ends, and they leave the stage.

“ There can be no proper time set when they do begin in the evening, or when they retire in the morning, for they do not keep to an hour, but they commonly spring up between six and twelve in the evening, and last till six, eight, or ten in the morning. They both come and go away again earlier or later, according to the weather, the season of the year, or some accidental cause from the land. For, on some coasts, they do rise earlier, blow fresher, and remain later than on other coasts, as I shall show hereafter.

“ These winds blow off to sea, a greater or less distance, according as the coast lies more or less exposed to the sea-winds ; for, in some places, we find them brisk three or four leagues off shore ; in other places, not so many miles, and, in some places, they scarce peep without the rocks ; or if they do sometimes, in very fair weather, make a sally out a mile or two, they are not lasting, but suddenly vanish away, though yet, there are every night as fresh land-winds ashore, at these places, as in any other part of the world.”*

* Dampier's Discourse of the Trade Winds, Breezes, Storms, Seasons of the Year, Tides and Currents of the Torrid Zone, throughout the World. Published at London in 1699. Vol. II. pages 27, et seq. of his Voyages.

Being always near the land, we found a constant source of interest in the sight of the Andes, and sometimes, also, of the lower lands, close to the sea, which we approached so near as to see the huts, and even the inhabitants themselves; but, though very desirous of landing to examine things more closely, we were obliged, for want of time, to deny ourselves this gratification. As it was seldom that a day passed without our seeing some remarkable peak, or range of mountains, the sketchers and surveyors were never idle. We kept sight of one grand peak, the Volcano of Colima, for no less than five days, during which it was drawn in every point of view, and its true geographical place ascertained within very small limits, by means of cross bearings and astronomical observations. But in the whole range we had not the satisfaction of discovering one volcano in action, nor even one emitting smoke, which was a considerable disappointment. At night we frequently saw brilliant fires on remote and very elevated spots, and sometimes bright reflections from the sky, of great illuminations beneath, which were invisible to us; but we were always incredulous as to their originating in volcanoes.

The only distinct snow we saw was on the top of Colima. The temperature of the air, for the first ten days after leaving Acapulco, was always considerably above 80° even at night. It afterwards fell to 72° , a diminution in temperature which was sensibly felt by every one.

On the 28th of March, at three o'clock in the afternoon, we anchored at San Blas, having completed a coasting voyage from the Island of Mo-

cho, on the south coast of Chili, nearly to California, a distance of four thousand six hundred miles; during the whole of which, with the exception of about two hundred leagues between Guayaquil and Panama, the land was constantly in sight.

CHAPTER XLIII.

NEW GALICIA IN MEXICO.

JOURNEY TO THE CITY OF TEPIC—RENCONTRE IN THE FOREST WITH OLD FRIENDS—OPINION OF A PEASANT AS TO THE NATURE OF FREE TRADE—DISCUSSIONS WITH THE MERCHANTS RESPECTING THE SHIPMENT OF TREASURE.

As no English man-of-war had ever before anchored in the port of San Blas, the arrival of the Conway excited considerable interest ; and we had scarcely secured the ship before boats were seen bustling on board, from all quarters, to inquire for and to give news. We had little to communicate, as we had been so long on our passage ; but from some ships lately arrived from Lima, North America, and India, we learned many interesting particulars. This port had been so recently thrown open to a free trade with all the world, that we had not expected to find so many ships ; nor was this the only instance in which we had miscalculated the activity of commercial enterprise, wherever it is happily unrestricted and unprotected.

After a few minutes ride from the landing-place ; we found ourselves in the town of San Blas, which is perched, like an eagle's nest, on the top of a rock a hundred and fifty feet high, absolutely pre-

cipitous on three sides, and very steep on the fourth, rising out of a low swampy plain, which, in the rainy season, is laid completely under water.

As I found that the merchants, both English and Spanish, lived in the interior, some at the neighbouring town of Tepic, others at the provincial capital, Guadalaxara, I determined to proceed to the former place to learn the state of the commercial intercourse with England, and whether I could in any way contribute to advance the interests of the British trade in that quarter.

A revolution, I found, had taken place not long before our arrival on the coast, by which the country of Mexico was declared independent of Spain; but there had been no further quarrel between the countries; on the contrary, the union of Mexicans and Spaniards formed an essential part of the new constitution. The Spanish merchants, therefore, the great, and almost the only capitalists, were allowed to remain in the country. Trade was declared to be free to all persons, and with all countries; yet this invitation of competition did not at first much affect the resident Spaniards, since they were already sole possessors of the market, by holding in their hands the greater part of the active trading capital: it rather augmented their profits, by giving them a wider range for the employment of their funds.

It was intimated to me, shortly after I had landed, that the Guadalaxara and Tepic merchants were anxious to establish, for the first time, a direct commercial intercourse with England; and that the arrival of the Conway had been anxiously looked for, in order that arrangements in that view might if possible be entered into. I lost no time,

therefore, but set out on the next day for Tepic, in company with an English gentleman, captain of an East India ship, and a young Spaniard from Calcutta.

The first part of our journey lay across low swamps, covered with brushwood, and enveloped in creeping, aguish-looking mists. In the course of a few hours we began to ascend the hills, where the country was richly wooded, the trees being tied to one another by festoons of innumerable creepers, waving gracefully above the impervious underwood, which concealed the ground from our view, and gave the forest precisely the air of an Indian jungle.

We passed several villages built of canes, with peaked roofs, rising to twice the height of the walls, thatched with the large leafy branches of the cocoa-nut tree, fastened down by rattans. At the half-way house, in the village of Fonseca, we fell in with a party of English gentlemen going down to the port. We had all met before in the midst of the turbulent times at Lima, and little expected to encounter one another, at the next interview, in the depths of a Mexican forest. In the interval, the different members of the company had visited, at very remarkable moments, many of the revolutionized countries; so that, when we compared notes, the several accounts were interesting, and curious in the highest degree. We joined dinners, and sat afterwards for upwards of three hours talking over old and new adventures; till, at length, the San Blas party mounted and set off; while we, not choosing to encounter the sun, looked about for cool places to take our siesta. A great sugar-mill close to us, which had been working all day,

and screaming in the most frightful manner, now stood still; the labourers went to sleep under the bushes; the tired bullocks were dozing stupidly in the sun, cranching, from time to time, some dried Indian corn husks; all the villagers had disappeared; everything was perfectly still; and we soon caught the drowsiness which universally prevailed, and fell asleep in an open shed under an enormous tamarind tree, whose branches overshadowed half the village.

The rest of the journey lay through a thick forest along wild mountain-paths, by which we gradually ascended so high, that before the evening there was a sensible change in temperature, causing that bounding elasticity of spirits which such transitions, accompanied by change in elevation, invariably produce.

The mountain scenery, during the latter part of the day, was bright and gorgeous beyond all description; and the sun had just set when we reached the top of an Alpine knoll, or brow of one of the highest ridges. This spot, which was free from trees, and matted over with a smooth grassy turf, projected so much beyond any ground in the neighbourhood, that it gave us a commanding view of the whole surrounding country, even to the sea. We stood here for some time admiring this magnificent scene, and watching the rapid change in colour which the woods underwent, at different elevations, as the sun's rays became fainter and fainter; till at last all brilliancy and variety were lost in one cold, grey, unpleasing tint. Presently it became dark for a time, after which a very different landscape arose, and finally settled for the

night in broad black shadows, and bright fringes, under the gentler influence of the moon.

While we were admiring the scenery, our people had established themselves in a hut, and were preparing supper, under the direction of a peasant, a tall, copper-coloured, semi-barbarous native of the forest; but who, notwithstanding his uncivilized appearance, turned out to be a very shrewd fellow, and gave us sufficiently pertinent answers to most of our queries. The young Spaniard of our party, a Royalist by birth, and half a Patriot in sentiment, asked him what harm the King had done, that the Mexicans should have thrown him off? "Why," answered he, "as for the King, his only fault, at least that I know about, was his living too far off. If a king really be good for a country, it appears to me he ought to live in that country, not two thousand leagues away from it." On asking him what his opinion was of the free trade which people were talking so much about? "My opinion of free trade," said the mountaineer, "rests on this; formerly I paid nine dollars for the piece of cloth of which this shirt is made, I now pay two; that forms my opinion of the free trade." The Spaniard was fairly baffled.

At daybreak next morning, after travelling over the hills, we came in sight of Tepic, a beautiful town, in the midst of a cultivated plain. It seemed strange to us that there should have existed so large and important a place, of which, until a few weeks before, we had never even heard the name; a reflection which often arises in the mind of a distant traveller. This city is next in importance to Guadalaxara, the capital of New Galicia, and is built in the regular manner of most of the Spanish

towns in that country. It lies near the centre of a basin, or valley, formed by an irregular chain of volcanic mountains; and the appearance of the town is rendered very lively by rows of trees, gardens, and terraced walks, amongst the houses, all kept green and fresh by the waters of a river which embraces the town on three of its sides.

In the course of the morning, I had several conferences with the merchants of Tepic, and the agents of others at Guadalaxara. It appeared, that the commercial capitalists of this part of Mexico were desirous of opening a direct communication with England; and, in order to do this safely and effectually, they proposed to remit a considerable quantity of specie to London, in the Conway, for which returns were to be made in English goods, in the manner practised ever since the opening of the trade in Peru, Chili, and Buenos Ayres. After a long discussion, I agreed to remain till a certain day, to give time for communications to be held with Guadalaxara, and with Mexico, it being necessary to obtain permission from the Supreme Government, before any treasure could be exported. Meanwhile, the merchants of Tepic, that no time might be lost, undertook to collect their funds, and to send off expresses to Mexico, and other towns, from which money was likely to be transmitted.

CHAPTER XLIV.

TEPIC IN MEXICO.

FEAST OF SANTA CRUZ—DRESS WORN BY THE INHABITANTS—TERTULIA, OR EVENING PARTY—THEATRE IN THE OPEN AIR—CONVITE, OR DINNER—TUMULTUOUS UPROAR.

IN the afternoon, we had an opportunity of seeing the gay world of Tepic, especially the female part, to great advantage. At about an hour before sunset, apparently the whole population repaired, in large family groups, to the church of La Santa Cruz, by a broad public walk, shaded by four or five rows of chesnut-trees, extending nearly half a mile out of the town. The evening was exceedingly pleasant, for the sun was low, and no longer scorched us, as it had done during the morning. The church stood in a little hollow, behind a small grassy knoll, in the brow of which the road leading to the court had been cut. Through this opening the town and the hills beyond it, and part of the great public walk, could be seen from the porch, at the entrance : in other respects the spot was quite secluded, and cut off from the sight of the low country surrounding the town.

As none except women attended the service, we were unwilling to intrude to see what ceremonies were performed ; but the door was thronged with

comers and goers, and a continued, low, humming noise, like that round a bee-hive on a fine summer's day, indicated that a multitude were engaged in a common pursuit. Sometimes a group of six or eight damsels would arrive together, and vanish at the entrance ; or a stray demure Beata would steal in at the side with affected humility. A compact cluster of merry lasses, a minute before in high gossip, might be seen sobering down their looks, and adjusting their shawls, as they approached the church ; while another party, still running over their last 'Ave,' were pressing outwards ; and, as soon as the threshold was past, flying off in all directions.

The women of the lower class wore lively-coloured gowns, and scarfs, called Rebozos, generally of a blue and white pattern, which was not printed, but woven. Some of the patterns consisted of red, blue, and white, in zig-zag stripes, differently arranged. The dress of the lowest class was of cotton only ; that of the others was of a mixture of cotton and silk ; and that of the richest people entirely of silk ; the whole being of the manufacture of the country.

During the middle of the day at Tepic, the heat was so great that no one could venture to stir abroad ; but at half past three or four, when it became agreeably cool, riding or walking parties were formed. In the evening, every house was thrown open to receive visitors ; but there were generally one or two, more fashionable than the rest, to which strangers were invited as a matter of course, as they were always sure of meeting pleasant company. The men of business repaired to their counting-houses very early in the morning ; but the ladies were not visible till about ten o'clock, when

they received company in the principal bed-room, or in the sala. One o'clock was the dinner-hour; and from two to half past three or four, all the world were taking their siesta, the streets at this period being literally deserted.

The ladies of Tepic were already beginning to dress in the European style; though, of course, some years behind the fashion, but still without anything peculiar to describe. The gentlemen wore brimmed brown hats, encircled by a thick gold or silver band, twisted up like a rope. When mounted, every gentleman carried a sword; not belted round him, as with us, but thrust, in a slanting direction, into a case made for the purpose, in the left flap of the saddle, so that the sword lay under, not over the thigh, while the hilt rose in front nearly as high as the pommel of the saddle, where it was more readily grasped, in case of need, than when left dangling by the side. The saddle was turned upwards four or five inches, both before and behind; in order, as I was told, to give the rider support both in going up and in coming down the very steep roads of the country. On each side, before the knees, hung a large skin of some shaggy-coated animal, reaching nearly to the ground: in wet weather, these skins cover over the rider's legs, while the Mangas covers the body. This is a cloak exactly resembling the poncho of the south, being of an oblong form, with a hole in the middle to receive the head.

In Mexico, these cloaks are generally made of fine cloth, richly ornamented round the neck with gold embroidery. The stirrups are made of wood, taken, no doubt, from the Spanish box-stirrup, but they are more neatly made than in Spain, and are

lighter, and fit the foot better. Silver spurs, of immoderate length and weight, were generally worn; and, instead of a whip, a long and curiously twisted set of thongs, which are merely a tapered continuation of the slender strips of hide of which the bridle is made, plaited into a round cord.

On Sunday, the 7th of April, the public were kept in full employment—first, by high mass; next, by feats of horsemanship in an open circus; and, lastly, by a play. The theatre was rude enough, but the greater number of the party, having seen no other, were perfectly satisfied. The audience were seated on benches placed on the ground, in a large court, open to the sky. The stage was formed of loose planks; the walls of cane and plaster, covered by a roof formed of boughs; the scenes consisted of pieces of cloth pinned together, and suspended from the cross bars supporting the thatch. There was no light but that of the moon; but the climate was so mild, that we sat for several hours without any inconvenience either from cold or from dew. As for the play itself, it deserved a better stage and better acting; it was a comedy of Calderon's, however, and caused great mirth.

There was a tertulia, or party, somewhere every evening, to which every person who chose was expected to go, without particular invitation. I shall endeavour to describe that which I visited on Sunday night.

Across the upper end of a large room, and for some distance along the sides, were seated the ladies, about twenty in number, in a compact line, and glued, as it were, to the wall. Sometimes, in the course of the evening, a gentleman succeeded in obtaining a station amongst the ladies, but he

was generally an intimate acquaintance, or a very determined stranger. In each corner of the room was placed a small stone-table, on which stood a dingy tallow-candle, the feeble glimmer of which gave a dismal light to the apartment; but, by an incongruity characteristic of the country, the candlestick was large and handsome, and made of massy silver. Behind the light, in a glass case, was displayed an image of the Virgin, dressed up as Nuestra Senora de Guadalupe, the patron saint of Mexico, almost suffocated with a profusion of tawdry artificial flowers. The line of ladies on one side reached to the door, and, on the side opposite, to a table about half-way along the room, on which were placed wine and water, gentlemen's hats, and ladies' shawls. Against one of the corner tables rested a guitar; and it seldom happened that there was not some person present ready to play a popular tune, or to accompany the ladies, many of whom sung very prettily. This occasional music went on without interrupting the conversation; indeed, the sound of the guitar amongst the Spaniards or their descendants is so familiar, that it acts more as a stimulus or accompaniment to conversation, than as an interruption. At the further end of the room was a card-table, where most of the gentlemen played at a game called Monte. The space in the middle of the room seemed to be allotted as a playground for the children of the house, and those of many removes in consanguinity. The nurses, too, and the old servants of the family, used the privilege of walking in and out; and sometimes they addressed themselves to such of the company as happened to be seated near the door. It may be remarked here, that in all those countries a degree

of familiarity is allowed between the servants and their superiors, of which, in England, there is no example in any rank of life.

The entrance to the room was from a deep verandah, or, more properly speaking, a passage open to the court and flower-garden in the centre of the quadrangle forming the house.

It occurred to me during the evening, that if a person were suddenly transported from England to this part of the world, he might be much puzzled to say where he had got to. On entering the house, by an approach not unlike the arched gateway of an inn, he would turn into the verandah, where he would in vain inquire his way from the merry group of boys playing at bo-peep round the columns, or scampering in the moonlight amongst the shrubs in the centre of the court; nor would he gain more information from the parties of neatly-dressed girls, who would draw up and become as prim and starch as possible, the moment they beheld a stranger; they would pout at him, and transfix him with their coal-black eyes, but would not utter a single word. Mustering courage, he might enter the sala or drawing-room; in an instant, all the gentlemen would rise and stand before their chairs like statues; but as neither the mistress of the house, nor any other lady, ever thinks of rising in those countries to receive or take leave of a gentleman, however cordial to ladies, our friend would be apt to conceive his reception somewhat cold. But he could have no time to make minute remarks, and would scarcely notice the unevenly paved brick floor—the bare plastered walls—the naked beams of the roof, through which the tiles might be counted—indeed, the feebleness of the

light would greatly perplex his observations. The elegant dresses, the handsome looks, and the lady-like appearance of the female part of the company, would naturally lead him to imagine he was in respectable society; but, when he discovered all the ladies smoking cigars, and heard them laughing obstreperously, and screaming out their observations at the top of their voices, he would relapse into his former doubts, especially when he remarked the gentlemen in boots and cloaks, and some with their hats on. Neither would his ideas be cleared up by seeing the party at the other end of the room engaged in deep play, amidst a cloud of tobacco smoke. And were he now as suddenly transported back again to his own country, it might be difficult to persuade him that he had been amongst an agreeable, amiable, and well-bred people—in the very best society—in the Grosvenor Square, in short, of the city of Tepic.

On the 12th of April, I made one of a great dinner-party, a sort of feast, or, as it is called in Spanish, a *convité*. The hour named was one o'clock, but it was half past one before the company were all assembled. We were first invited into a side-room to take a whet, which, to say the truth, looked more like a substantial luncheon, than a sharpener of the appetite; for in the middle of the table was placed a goodly ham, flanked by two huge bowls, one filled with punch, the other with sangaree—a mixture of wine, sugar, lemon-juice, and spirits, and a favourite beverage of all hot climates. At each end of the table stood a dish of cheese, ingeniously carved into the shape of radishes and turnips; and at the corners a dish of olives, covered with slices of raw onions, floating

about in vinegar. I need not add, there was aguardiente and wine in profusion. Such ample justice was done to this whet, that the dinner, I thought, stood a poor chance of being touched, but in this I was much mistaken.

Forty people sat down to one table. At the top were placed the two principal ladies; on their right sat the military Commander-in-chief, while I was requested to sit on the other side, next to the lady of the house. Then came the Alcalde, the chief civil authority, and so on. The master of the house would on no account sit down, but served at table in the capacity of waiter, assisted most good-naturedly by four or five gentlemen, for whom there were no places, or who preferred making themselves useful in this way, to dining in another apartment along with ten or a dozen young men, equally shut out by want of room.

At first a suspicious kind of calm prevailed, but the soup had scarcely been removed before there appeared symptoms of an approaching storm. While we were discussing the olla, the dish which always succeeds the soup, a principal person in company rose up and shouted out, "Copas en mano!" handle your glasses! But such was the noise and clatter of plates and tongues, that he had to repeat his mandate several times, and to stretch out his tumbler brim-full of wine, before the distant parts of the company stood up in honour of the toast, which I had expected was to have had some point, but was merely one of the common-places of the day, "Union y Libertad." After this signal, there was kept up, during the whole dinner, a constant discharge of toasts and sentiments; and upon an average, towards the end of dinner, there could be

no less than ten or twelve gentlemen on their legs, all speaking at once, at the full stretch of their voices, and accompanying every remark with some theatrical gesticulation. Others kept their seats, thinking perhaps they might thereby have a fairer aim at the table, which rung from end to end with the blows by which these jovial orators sought to enforce their arguments.

Meanwhile, the dinner went on as if nothing remarkable was passing; the plates and dishes were changed by the servants and the amateur waiters, with such singular dexterity, that in spite of this vast disorder, the bottle passed in safety, and more and more rapidly; the noise increased; the bawlers became more numerous; and by the time the dinner was well over, the party fell to pieces, and all seemed uproar and confusion; groups of four or five, and sometimes twice that number, might be seen clustered together, all speaking or singing at once. I never was more astonished than at seeing men, on all other occasions perfect models of decorum, suddenly lose their formality, and act like professed toppers and merry-makers. At first, judging by the analogy of Europe, I thought this must needs end in blows, and stood prepared to avoid the bottles and glasses, which were soon likely to be flying about. But after a little while, it was easy to discover more sounds of mirth than of anger; and as the ladies, who must have been accustomed to such scenes, sat very composedly, viewing it all with great delight, I became reassured, and kept my place.

Something like order was presently restored by the feats of a merry Biscayan, who dressed himself like a cook, by throwing off his coat and waistcoat,

turning up the sleeves of his shirt above the elbows, and pinning a napkin across his breast. Those who knew him of old were immediately aware of what he was going to do, and roared out, "Pastel! pastel!" (a pie! a pie!) upon which all singing, drinking, and talking were put an end to for a season, and every one crowded round to see this famous pie made.

The Biscayan first indicated by signs that a large dish was to be supposed before him, into which he pretended to place a number of ingredients, naming each as he affected to put it into his pie. These ingredients consisted principally of his friends, some of whom he inserted whole; of others he appropriated merely some ridiculous quality, or characteristic peculiarity; and as he chose only such persons as were present, the laugh went round against each in his turn. His satire was sometimes very severe, especially against the ladies; and at length he pretended, after a long and witty preface, to cut up the curate, who was sitting opposite, and thrust him into the dish, to the unspeakable delight of the company. No one enjoyed the laugh more than the priest himself. But the Biscayan was too judicious to risk tiring his audience with any more of the pie after this last happy sally, so catching up a guitar, an instrument always at hand wherever Spanish is spoken, and casting his eye round the company, he addressed an extempore verse to each of the principal guests; then jumping off the table, on which he had seated himself to play the guitar, he set about imitating the manner of walking and speaking of five or six different provinces of Spain. This mimicry, though lost upon us, appeared to be so accurately done, that he could scarcely begin an

imitation, before a number of voices called out, "Gaditano!" "Gallego!" or whatever might be the province the manners of which he was representing.

His last feat was one which certainly would not have been permitted a year or two before in a country so bigotted, or indeed in any country under Spanish control. Having taken a table-cloth, he dressed himself like a priest, and assuming the most ludicrous gravity of countenance, went through a part of the ceremony of high mass, to the infinite delight of the company, who shook the house with peals of laughter. The curate was nowhere to be seen during this exhibition, which he could not, I suppose, have permitted to go on in his presence, although, indeed, everything serious seemed banished for the time.

Immediately after this joke, the noise ceased, the party broke up, and every one went off to his siesta, with a composure and steadiness which showed that the greater part of the preceding riot was the effect of choice, not of intoxication; to which, certainly, in appearance, it was most closely allied. To satisfy myself on this point, I entered into conversation with several of the most boisterous of the party, but they were now so perfectly quiet and sedate, that it was difficult to believe they were the same individuals, who, but a few minutes before, had been, apparently, so completely tipsy.

CHAPTER XLV.

A CASE OF CONSCIENCE ADROITLY MANAGED—PENANCE AND MARRIAGE, OFFENCE AND EXPIATION—EXPEDITION TO THE TOP OF A MOUNTAIN—ABSURD JEALOUSY OF THE LOCAL AUTHORITY—ILLUSTRIOUS AYUNTAMIENTO'S DESPATCH.

SOME days after this dinner, I went to the Convent of La Cruz to visit a friend who was doing penance, not for a sin he had committed, but for one he was preparing to commit. The case was this: Don N. had recently lost his wife, and not choosing to live in solitude, looked about for another helpmate; and being of a disposition to take little trouble in such a research, or, probably, thinking that no labour could procure for him a companion more suitable than his own house afforded, he proposed the matter to his lately lamented wife's sister, who had lived in his house for several years before; and who, as he told me himself, was not only a good sort of person, but one well acquainted with all the details of his household, known and esteemed by his children, and accustomed to his own society.

The church, however, looked exceedingly grave upon the occasion; not, however, as I at first supposed, from the nearness of the connexion, or the shortness of the interval since the first wife's death,

but because the intended lady had stood godmother to four of Don N.'s children. This, the church said, was a serious bar to the new alliance, which nothing could surmount but protracted penance and extensive charity.

Don N. was urgent, and a council was assembled to deliberate on the matter. The learned body declared, after some discussion, the case to be a very knotty one ; and that, as the lady had been four times godmother to Don N.'s children, it was impossible she could marry him. Nevertheless, the good fathers wished to give the unhappy couple another chance ; and agreed to refer the question to a learned doctor in the neighbourhood, skilled in all difficult questions of casuistry. This sage person decided that, according to the canons of the church, the marriage might take place, on payment of a fine of four hundred dollars : two for the poor in pocket, and two for the poor in spirit, namely the priests. But to expiate the crime of marrying a quadruple godmother, a slight penance must also be submitted to in the following manner. Don N. was to place himself on his knees before the altar, with a long wax-candle burning in his hand, while his intended lady stood by his side, holding another : this was to be repeated in the face of the congregation for one hour, during every Sunday and fast-day throughout a whole year ; after which purifying exposure, the parties were to be held eligible to proceed with the marriage.

Don N., who chose rather to put his conscience than his knees to such discipline, took his own measures on the occasion. What these were, the idle public took the liberty of guessing broadly enough, but no one could say positively. At the

end of a week, however, it was announced, that the case had undergone a careful re-examination, and that it had been deemed proper to commute the penance into one week's retirement from the world; that is to say, Don N. was to shut himself up in the Convent of La Cruz, there to fast and pray in solitude and silence for seven days. The manner in which this penance was performed is an appropriate commentary on the whole transaction. The penitent, assisted by two or three jovial friars of the convent, passed the evening in discussing some capital wine, sent out for the occasion by Don N. himself, after eating a dinner prepared by the cook of the convent, the best in New Galicia. As for silence and solitude, his romping boys and girls were with him during all the morning; besides a score of visitors, who strolled daily out of town as far as the convent, to keep up the poor man's spirits, by relating all the gossip which was afloat about his marriage, his penitence, and the wonderful kindness of the church.

The interest I took in the question throughout, induced Don N. to invite me to the wedding. The ceremony did not differ essentially from our own: but the prayers were read in so rapid and mumbling a style, that I could not, for a long time, discover whether they were in Spanish or in Latin. There was, as usual, abundance of wine and cakes; and it was truly exhilarating to mark the relish with which the good fathers drained their glasses.

The Novios, as the bride and bridegroom are called, were silent and attentive, but I was the only other person in the room who was so during the whole ceremony; every one else being employed in laughing or whispering to his neighbour. Even

the officiating priest was scarcely serious ; and at the conclusion, when he shut the book, and the ceremony was considered as over, he said something ludicrous and appropriate to the circumstances, but in the same tone he had used in reading the service. This, notwithstanding its scandalous impropriety, was almost irresistibly comic, and I had the utmost difficulty to repress a laugh. I was restrained by an idea, that, whatever liberties these people might themselves choose to take on such an occasion, they must have been displeased at an heretic's presuming to join in the jest. This prudent gravity, which cost me a considerable effort, was the means of bringing me acquainted with an old gentleman I had not seen before. He came up to me, and begged to introduce himself, saying, he wished to express how much pleased he was to observe that all Englishmen did not ridicule the Roman Catholic Sacraments ; and he hoped I would accept a copy of Don Quixote, of which he had an old and valuable edition, in testimony of his satisfaction, as well as to keep me in mind of his friend Don N.'s marriage.

In relating this anecdote, I trust it will not be supposed that I intend to ridicule the Catholic service generally ; but it seems quite allowable for a traveller, on such an occasion, to impart to his journal the same tone, which the whole society of the place, where it occurred, are disposed to give. I have always, indeed, studiously avoided placing in a ridiculous point of view any customs or ceremonies which, however absurd they might appear to us, were held sacred by the inhabitants themselves. On this occasion, however, I have rather understated than exaggerated the degree of merri-

ment which the events described excited in all classes of society on the spot; and I feel well assured, that should these pages ever meet their eye, they will be as much amused with the adventure as any foreign reader can be.

On the 18th of April I accompanied a Spanish gentleman and a native merchant of Tepic to the top of a hill in the neighbourhood of the town. Our object was to gain a view of the surrounding country; and in this we succeeded beyond our expectation, for the view extended to the sea, and along the coast to a great distance. On the other hand, it brought some ranges of the Andes in sight, especially one remarkable mountain, the top of which, unlike this chain in general, was perfectly flat for an extent of many leagues.

Nothing certainly could have been more innocent than this trip to the hill, and I was of course greatly surprised to learn next day that it had excited suspicion in the minds of the local authorities. It was provoking too to find, that the unceasing pains we had taken to avoid giving cause of offence had proved ineffectual. On first reaching Tepic, I had learned from a friend, that the people were remarkably jealous of strangers, and apt at any time to misinterpret the most harmless actions; and that, in our case, their suspicions would be increased, as the Conway was the first English man-of-war that had visited this remote corner of the country. I did not see why this should follow, but attended, nevertheless, sedulously to the hint, and took care to impress on the officers a similar feeling. We had been flattering ourselves that we had completely succeeded, and imagined we had gained the good-will of all par-

ties, by avoiding political discussions, and by being pleased with everything and everybody. We were mistaken, however ; and on the day following the excursion to the hill, the Illustrious Ayuntamiento, such is the title of the town-council, met to examine evidence ; and all sorts of absurd stories were told and believed, till at length, having worked themselves into a due pitch of diplomatic alarm, they resolved to write me an official letter. Several of the members, with whom I was personally acquainted, suggested that a little delay, and some farther inquiry, might be advisable, before an angry letter was written to a stranger living amongst them. This forbearance, however, was overruled ; and as the state appeared to be in danger, the letter was sent before the meeting broke up. I give a translation of it here, as it explains the nature of their suspicions, which, I need scarcely say, were utterly without foundation. It serves also, in some degree, to show the temper of the times : the government and its institutions being still new, and administered by inexperienced hands, it was natural for the executive branch to feel somewhat over cautious, and to be apt to suspect, without cause, that their authority was trifled with.

TRANSLATION.

“ The Ayuntamiento has learned, that during the time you have been resident in this city, you have taken measurements for making a plan of it, and of the neighbouring hills, according to the series of observations which it is known you have made of its respective points ; and that you are

now in expectation of some necessary instruments from the port of San Blas. Even admitting that these operations have been the result of mere curiosity, and have not been made with the above-mentioned intention, the Corporation, nevertheless, cannot but express its surprise, that while the Supreme Government of this empire has given orders that the officers and other subjects of his Britannic Majesty should be treated with the greatest attention,—(as accordingly has been done by allowing them to enter the country,)—you should not have condescended to request of this subordinate government the necessary permission for carrying on such operations, the object of which can have been no other than that which is assigned above, the very serious consequences of which you cannot be ignorant of.

“ God grant you many years.

“ Dated in the Council-Chamber of Tepic, 19th April 1822. Second year of the Independence of Mexico.

(Signed)

“ J. R.

“ M. D. Sec.”

Spanish diplomacy, like that of China, has means of showing every shade of respect or disrespect, by the mere form and style of the despatch, without any direct breach of etiquette; and accordingly, this testy communication was written on an uncut sheet of coarse note paper, and transmitted without an envelope. I thought it most suitable, however, not to take the least notice of these symptoms of ill-humour, but to answer the Illustrious Ayuntamiento in the most ceremonious and formal manner possible, but, at the same time, with the

utmost good-humour. I had nothing, indeed, to say, but that I never had the slightest intention of making any plan of the town or the neighbouring country, and had taken no measurements nor any observations, and that I neither had brought with me, nor had I sent for, any instruments.

The Ayuntamiento, who had probably been hoaxed by some wag, were afterwards sorry for having sent me such a despatch, and it was actually proposed in council to write me another in explanation; but a friend of mine, belonging to that illustrious body, put a stop to this, by declaring, he had authority from me to say, that I was perfectly satisfied of there having been some mistake, and that I had already received too many proofs of their good-will to require or wish for any apology. This puzzled them a little; but they were ever afterwards particularly civil and kind, not only to me, but to the other Englishmen on the spot.

CHAPTER XLVI.

MARRIAGE FEAST—DESCRIPTION OF A MEXICAN BRIDE—INDIANS ARMED WITH BOWS AND ARROWS—SINGULAR BEE-HIVES, AND BEES WITHOUT STINGS—DISCUSSION ON THE EXPORT OF THE PRECIOUS METALS—NEGLECTED STATE OF FEMALE EDUCATION.

21st of April.—A family of my acquaintance, consisting of a widow, her son, and two daughters, invited me to-day to accompany them to a wedding-dinner, given to an old servant of theirs by his relations. These ladies had observed, that the English were always inquiring into the customs of the natives; and thinking it would amuse me to see this dinner, had asked me to join their party. It appeared that, at such entertainments, it was considered a creditable thing for the parties to have the countenance of their former masters, or some person in better circumstances; a very natural feeling, and one which the higher classes in that country appear to have great pleasure in gratifying. Indeed, I never have seen in any part of the world a more amiable, or more considerate and kindly feeling of superiors towards their dependants, than exists in South America and Mexico. In those parts, also, now very few, where slaves exist, the manner in which they are treated is highly exemplary. And it may be said, generally, that in the Spanish colonies, or in places occupied by the de-

scendants of Spaniards, the treatment of servants of every kind is milder than in most other parts of the world. This has sometimes been explained, on the supposition, that the oppression of the mother-country might have taught the colonists gentleness, and indulgence to such as were dependent upon them. But experience shows, that the contrary really takes place in the world ; and we must look for an explanation of the fact in the genuine goodness of the Spanish character, which, though overlaid and crushed down by a series of political and moral degradations, is still essentially excellent, and worthy of a far better destiny.

The cottage in which the entertainment was given, stood on the wooded bank of the river, on the north side of the town ; and, though not ten minutes' walk from the market-place, had all the appearance of being far in the country—such is the promptitude and luxuriance with which vegetation starts up in these happy climates.

As we approached the spot, we observed a number of people, in their best dresses, seated on the grass round the house : they rose as we entered the court, where the master and mistress were standing ready to receive us. The former, who, it seemed, was the padrino, or person who gave away the bride, was the giver of the feast. In the room to which we were shown, a dinner-table was laid out for eight or ten people. The bride and her mother, with several female relations, were seated at the upper end of the apartment ; the bride being dressed up in gaudy-coloured cottons, with immense ear-rings, and a profusion of showy, artificial flowers in her hair. She sat with her arms folded, and with a look of determined gravity, or

rather, as it appeared, of sulkiness, that promised no comfortable life to the husband. But I learned afterwards, that it was an essential part of the etiquette, upon these occasions, for the bride to be uniformly grave, silent, and seemingly abashed and frightened; that a smile from her would be considered the height of indecorum; and a cheerful speech, even to welcome a guest, the most unpardonable indelicacy.

No one sat at dinner besides our party, except the bride and her mother, and one of her aunts. The bridegroom would also have sat down with us, had there been room; but as there was not, he placed himself at a small side-table, along with his father. When we had done dinner, we rose to make room for the second set, consisting of the friends of the Novios; after which, a feast was spread on the grass outside, for all who chose to partake of the good cheer. The object of the first dinner was to prove that the family was respected by their superiors—of the second, to show they were not without friends of their own class—and the dinner without was intended as a display of their liberality.

When the party who succeeded us had nearly dined, one of them, a poet by profession, rose and addressed some extempore verses to the bride; which, though humorous enough to make all the rest of the company laugh, were received by her with the most correct indifference. The poet, a sly old fellow, and half-tipsy, was a person well known for making it a point of conscience never to allow any wedding, or other merry-making, to pass without a sufficient dose of his verses.

As we imagined our presence imposed some restraint upon the party, we retired to another cot-

tage, when one of the young ladies, spying a harp, carried it to the door, and played to the people who were lounging about. They immediately began the dance of the country, consisting of a short, inelegant step, mixed with an occasional rapid stamping of the foot, while in the act of describing various small circles round one another. The harp, on these occasions, was generally accompanied by a shrill song. No more than two persons danced at a time; and the step, figure, and the numerous gesticulations, appeared to depend on the taste and fancy of the couple themselves. It is very remarkable that this dance bears the closest resemblance to that of Chili, and every other country we visited along the whole coast. The natural inference from this fact would seem to be, that it owes its introduction to the Spaniards; who, in their turn, may have borrowed it, in still earlier times, from the Moors. The dance and the music certainly bear no small resemblance to what we find at the Natches, or native dances in India.

On the 22d of April, when I was walking through the market-place, with one of the officers of the ship, our attention was arrested by a party of native Mexican Indians, who had come from the interior to purchase maize and other articles. Each of them carried a bow, and about two dozen of arrows, and wore in his girdle a long broad knife. Their dress was a coarse cotton shirt, made of cloth manufactured by themselves; and a pair of leather small-clothes, loose at the knee, fringed with a line of tassels, and short strips of leather; each being intended to represent some article belonging to the wearer: one, meant his horse, another his bow, another, larger and more ornamental, stood for

his wife, and so on. The most striking circumstance, however, was, that all these Indians wore feathers round their heads, precisely in the manner represented in the drawings which embellish the old accounts of the conquest of the country by Cortes. Some of these people tied round their straw-hats a circle of red flowers, so much resembling feathers, that it was not easy to distinguish between the two. Several of the Indians wore necklaces of white beads made of bone, the distinctive mark, as we were told, of being married. A little old man of the party, who seemed much entertained by our curiosity, begged our attention to a rod about two feet long, which he carried in his hand, and to the skin of a little bird of brilliant plumage, suspended at his left knee : these two symbols, he gave us to understand, belonged to him as chief of the village. The only woman of the party stood apart, wrapped in a coarse kind of blanket, holding the bridles of the mules. At first, these poor Indians were rather alarmed at the interest we took in their dress and appearance ; and as they understood but little Spanish, shrunk back from us. But an obliging person in the market-place stepped forward to act as interpreter, which soon reassured them, and they came round us afterwards with confidence ; but it was with great reluctance they parted with their bows and arrows, and their feathered ornaments. The old man could not be prevailed upon to part with his rod of authority, nor his official bird ; neither could we induce them to sell, at any price, that part of their dress to which the inventory of their goods and chattels was appended.

These Indians are a small and feeble race of

men, resembling, in this respect, the aboriginal inhabitants of the country, whom the early travellers have described. Their bows and arrows are suited to their strength, being more like those of school-boys, than the arms of men who have their country to defend; and it is impossible not to look back with pity upon the unequal contest waged in this unfortunate country, when the musket and bayonet of the disciplined Spaniard were opposed to weapons so contemptible, and in such feeble hands.

From the Plaza, we went to a house where a bee-hive of the country was opened in our presence. The bees, the honeycomb, and the hive, differ essentially from those of Europe. The hive is generally made out of a log of wood, from two to three feet long, and eight or ten inches in diameter, hollowed out, and closed at the ends by circular doors, cemented closely to the wood, but capable of being removed at pleasure. Some persons use cylindrical hives, made of earthen-ware, instead of the clumsy apparatus of wood; these are relieved by raised figures and circular rings, so as to form rather handsome ornaments in the verandah of a house, where they are suspended by cords from the roof, in the same manner that the wooden ones in the villages are hung to the eaves of the cottages. On one side of the hive, half-way between the ends, there is a small hole made, just large enough for a loaded bee to enter, and shaded by a projection, to prevent the rain from trickling in. In this hole, generally representing the mouth of a man, or some monster, the head of which is moulded in the clay of the hive, a bee is constantly stationed; whose office is

no sinecure, for the hole is so small, he has to draw back every time a bee wishes to enter or to leave the hive. A gentleman told me that the experiment had been made by marking the sentinel; when it was observed, that the same bee continued at his post a whole day.

When it is ascertained by the weight that the hive is full, the end pieces are removed, and the honey withdrawn. The hive we saw opened was only partly filled; which enabled us to see the economy of the interior to more advantage. The honey is not contained in the elegant hexagonal cells of our hives, but in wax bags, not quite so large as an egg. These bags, or bladders, are hung round the sides of the hive, and appear about half full, the quantity being probably just as great as the strength of the wax will bear without tearing. Those nearest the bottom, being better supported, are more filled than the upper ones. In the centre or the lower part of the hive, we observed an irregular-shaped mass of comb furnished with cells, like those of our bees, all containing young ones, in such an advanced state, that when we broke the comb and let them out, they flew merrily away. During this examination of the hive, the comb and the honey were taken out, and the bees disturbed in every way; but they never stung us, though our faces and hands were covered with them. It is said, however, that there is a bee in the country which does sting; but the kind we saw seem to have neither the power nor the inclination, for they certainly did not hurt us; and our friends said they were always "muy manso," very tame, and never stung any one. The honey gave out a rich aro-

matic perfume, and tasted differently from ours ; but possessed an agreeable flavour.

On the 26th of April, an answer to the application of the merchants, for permission to ship money in the Conway, was received from Mexico. But the terms in which the licence was worded showed, that although government had felt it right, in conformity with a proclamation issued some time before, to grant this permission, yet they still retained the characteristic feeling of doubt, as to the expediency of allowing gold and silver to leave the country. They could not, all at once, divest themselves of the mistaken idea, that money, independent of its exchangeable value, was riches. They had not yet learned to separate the idea of wealth and power from the mere possession of gold and silver ; not seeing that it was solely by the process of exchanging them for goods and for services which they stood in need of, that either wealth or power could arise from the precious metals, of which they had more than they wanted. Juster notions, it is true, were by this time beginning to be disseminated amongst them, and the government perceived the importance of viewing the precious metals as mercantile commodities of exchangeable value ; and since they were the staple produce of the country, of encouraging their production and export. That enlarged views should at once take deep and effective root in the minds of such infant governments, was hardly to be looked for ; and, accordingly, we invariably found the same erroneous but seductive idea prevailing, more or less, that gold and silver were in themselves national wealth, and that they ought not, therefore, to be allowed to leave the country. These notions obtained universally

amongst the lower orders, and generally amongst the upper classes, excepting the principal merchants, whose habits of business led them directly to the truth.

As the greater part of the treasure was exported in British men-of-war, the jealousy with which we were often regarded by the people was increased; and it was no easy task to show, that, for every dollar carried out of the country, an equivalent value in goods must necessarily come into it—of goods which they stood in need of, in exchange for metals of which they had infinitely more than they wanted. It would be unreasonable, however, to reproach these people with inaccurate views on this subject, simple as it may seem; since, till very recently, opinions equally false and mischievous to society, prevailed almost universally in countries where political economy was much better understood than it is likely to be for some time to come in Mexico.

But if we lament the folly of thus throwing obstacles in the way of turning the most valuable produce of the country to the best account; we feel deeper regret, and more lively indignation, when we see the waste of mental treasure which the same unwise policy; and contracted views, have occasioned in those countries.

These remarks refer more particularly to the female part of society; and I find it difficult to use language which shall describe the state of the case, without, at the same time, implying reproach or censure upon them, a thing altogether foreign to my meaning. The fault, in fact, does not lie with the individuals; so far from it, that when, in any instance, the opposing causes happened to be remo-

ved, and opportunities were presented for improving their minds, the effect was so remarkable, that it was impossible not to hail with satisfaction the prospect now opening, by which the means of improvement, heretofore rare and accidental, may become general, and within the reach of the whole society.

It was really painful to see so many young ladies of excellent abilities, anxious to learn, but without any means of improvement, receiving little or no encouragement from their seniors, and the very reverse of encouragement from the priests.

With respect to the men it may be remarked, that they probably unconsciously have contributed, by their behaviour to the women, to aggravate the effect of the other causes which have been adverted to as degrading their country. They had no share whatever in the government, or in the commerce of the country; and were thus left almost without motive to any kind of exertion. They, therefore, naturally betook themselves to ignoble pursuits, and being indifferent to public opinion, thought of nothing less than of studying to elevate and sustain the moral excellence of the other sex. The reaction upon themselves, from the degradation which they caused, followed as an inevitable consequence; and thus the whole community was lowered in the scale of civilization and morals.

We may now, however, rationally hope, that when the men are called to the exercise of high duties, and a thousand motives are placed before them to encourage them to exertion, they will soon learn the value of character; and public opinion will, for the first time, be felt and understood in the country. They will then discover how important a

share of that opinion belongs to the women ; and will have an interest in contributing everything in their power to elevate, instead of undervaluing their influence. If things be thus left to take their natural course, the tide of knowledge and happiness will soon overspread the land ; and the fertility, which such an inundation will impart to the soil, will enable it to bear any degree of culture.

CHAPTER XLVII.

SKETCH OF THE REVOLUTION IN
MEXICO

FIRST APPEARANCE OF DON AUGUSTIN DE ITURBIDE—PLAN OF IGUALA—GENERAL O'DONAJU—TREATY OF CORDOVA—CONGRESS—DECREE OF THE CORTES AT MADRID—ITURBIDE PROCLAIMED EMPEROR—CHARACTER OF ITURBIDE—ABDICATION AND BANISHMENT—RETURN AND EXECUTION

BEFORE describing the state of party-feeling, it will, I think, be satisfactory to say a few words on the recent Revolution in Mexico, which differs in many particulars from those of the other Transatlantic States.

Mexico, like Chili, has been twice revolutionized. The first struggle commenced in September 1810, and was carried on with various success till July 1819, when the exertions of the Patriots were almost extinguished.

Although the Independents failed in their first attempt, the experience gained in the course of a long and arduous contest contributed materially to the more successful conduct of the second Revolution, of which I am about to give a very brief sketch.

About the middle of 1820, accounts were received in Mexico of the Revolution in Spain, and it was soon made known, that orders had been sent to Apodaca, the Viceroy, to proclaim the Constitution, to which Ferdinand the VII. had been obliged to swear. But it appears that Apodaca, and some of the principal generals, acting probably under secret orders from the King, resolved to resist the establishment of the constitution. The popular sentiment, as may be supposed, was against such a project; and the seeds of an extensive revolt were in this way sown by the very persons, who, it may be supposed, had the interests of the mother-country most at heart. New levies of troops were made by government to suppress any attempt to declare the Constitution; and the whole country was gradually, and almost insensibly, roused into military action.

The chief obstacle, as it was thought by these leaders, to the success of their plan, was the presence of General Don N. Armigo, whose attachment to the cause of the Constitution was too well known to admit a doubt of his supporting it. He was, therefore, dismissed from the command of the military division stationed between Mexico and Acapulco; and in his place Don Augustin Iturbide was appointed; an officer who, during the former Revolution, had adhered steadily to the interests of the King, though he was a native of Mexico. He had been privy to the secret project above alluded to, of forcibly resisting the proclamation of the constitution, and when he left Mexico in February 1821, to supersede Armigo, he was implicitly confided in by the Viceroy, who appointed him to escort half a million of dollars

destined for embarkation at Acapulco. Iturbide, however, soon took possession of this money at a place called Iguala, about one hundred and twenty miles from Mexico, and commenced the second Mexican Revolution, by publishing a paper, wherein he proposed to the Viceroy that a new form of government should be established, independent of the mother-country.

As this document, which bears the title of the Plan of Iguala, was made the foundation of all the subsequent proceedings of the revolutionists, it may be interesting to give a sketch of its leading points. It bears date the 24th of February 1821, the day after Iturbide had possessed himself of the treasury under his escort.

Article 1st maintains the Roman Catholic religion, to the entire exclusion (*intolerancia*) of any other.

2d, Declares New Spain independent of Old Spain, or of every other country.

3d, Defines the government to be a limited monarchy, "regulated according to the spirit of the peculiar constitution adapted to the country."

4th, Proposes that the Imperial Crown of Mexico be offered first to Ferdinand VII.; and, in the event of his declining it, to the younger princes of that family, specifying that the representative government of New Spain shall have the power eventually to name the Emperor, if these princes shall also refuse. Article 8th points this out more explicitly.

5th, 6th, and 7th Articles, relate to the details of duties belonging to the Provisional Government, which is to consist of a Junta and a Re-

gency, till the Cortes or Congress be assembled at Mexico.

9th, The government is to be supported by an army, which shall bear the name of "The Army of the Three Guarantees." These guarantees, it appears by the 16th Article, are, 1st, The Religion in its present pure state: 2d, The Independence; and, 3d, The Union of Americans and Spaniards in the country.

10th and 11th relate to the duties of Congress, with respect to the formation of a constitution on the principles of this "Plan."

12th, Declares every inhabitant of New Spain a citizen thereof, of whatever country he be; and renders every man eligible to every office, without exception even of Africans. A subsequent modification of this article excluded slaves.

13th, Secures persons and property.

14th, Gives strong assurances of maintaining, untouched, the privileges and immunities of the Church.

15th, Promises not to remove individuals from their present offices.

16th, (See 9th.)

17th, 18th, 19th, and 20th, relate to the formation of the army and other military details.

21st, Declares that until new laws be framed, those of the present Spanish constitution are to be in force.

22d, Declares treason against the Independence to be second only to sacrilege.

23d, To the same effect.

24th, Points out, that the Cortes, or Sovereign Congress, is to be a constituent assembly, to hold its sessions in Mexico, and not in Madrid.

This plan dexterously involves the direct and obvious interests of all classes in the community, especially of those who had most to lose; the clergy and the Old Spaniards, who held by far the most extensive influence over society, one by being in possession of nearly all the active capital in the country; the other by having gained, in times past, an influence over men's minds, to which, perhaps, there does not now exist a parallel in the Christian world. But, although this be true, yet both these parties had been recently made to feel, for the first time, that their influence, and even existence, depended upon opinion alone; and this they were sufficiently aware they might lose in a moment. To them, therefore, the countenance of men in power was the greatest consequence; and it became their immediate interest to support the views of a party, which, instead of oppressing them, as had been the case elsewhere in South America, actually condescended to borrow their support, and to provide for their safety.

Again, by not holding out a vague prospect of a representative government, but beginning at once, by calling the deputies together, and by appointing a deliberate junta and an executive regency, doubts and jealousies were dissipated, or put to sleep.

In the interim, while the above proposition was submitted to Spain, this plan answered Iturbide's purposes fully, as the flame which it had kindled soon spread over the whole country. He was soon joined by several of the most distinguished of the king's officers; amongst others by Don Pedro Celestino Negreti, a Spaniard, but married in the country; and by Colonel Bustamante, who brought

over with him a thousand cavalry. On every side the great cities yielded to the Revolutionary forces. Such also was Iturbide's address, that, in every case of conquest, he converted into active friends all those who had been indifferent before ; and seldom failed to gain over to his cause the most powerful of his enemies ; while, at the same time, he won the confidence and esteem of every one, by his invariable moderation, humanity, and justice.

While the Independent cause was thus rapidly advancing, that of the Spanish government was falling fast to pieces. The Viceroy Apodaca found it impossible to stem the torrent, and was glad to abdicate his authority at the mutinous suggestion of the officers, who, it is curious to observe, adopted a course exactly similar to that of their countrymen in Peru, in the case of Pezuela. But his successor, Field-Marshal Novella, in vain endeavoured to restore the cause of the king, while Iturbide drew his armies closer and closer round the capital, subduing everything before him.

At this critical moment, a new Viceroy, General O'Donaju, arrived from Spain, vested with powers to supersede Apodaca. To his astonishment he found the country he came to govern no longer a colony of Spain, but an independent state. As he had come without troops, he saw at a glance that Mexico was irretrievably lost, on the terms, at least, on which it had been held heretofore. He endeavoured, however, to make the best conditions he could for his country ; and, in order to pave the way, issued a proclamation to the inhabitants, breathing nothing but liberality and hearty congratulations upon their prospect of happiness ; a most

singular document indeed to come from a Spanish Viceroy, and one which it was next to madness to suppose that the Spanish Government would ever acknowledge.

Iturbide, delighted to see this disposition on the part of O'Donaju to take things in such unexpected good part, invited him to a conference. They accordingly met at Cordova, where, after a short discussion, a treaty, which bears the name of that city, was signed on the 24th of August 1821. By this treaty, O'Donaju fully recognized the Plan of Iguala; and not only engaged to use his influence to support it at home, but, in order to manifest his sincerity still farther, he actually agreed to become a member of the Provisional Revolutionary Government—to despatch commissioners to Spain to offer the crown to Ferdinand—and, in short, in the name of Spain, to make common cause with Mexico.

This treaty of Cordova bears internal evidence of having been dictated by Iturbide himself, and as it bears in all its parts the strongest characteristic marks of his policy, and is in itself highly interesting, I think it no more than justice to Iturbide, as well as to the truth of history, to give it at length.

The form of government, indeed, established by this treaty, subsisted little more than a year and a half, (August 1821, to February 1823;) but although so short a period be inconsiderable, when speaking of other nations, it is by no means so when it refers to these new-born states. The good effects which arose from Iturbide's energetic and virtuous administration, will long be felt by that country, however little its influence may at pre-

sent be acknowledged, or however inexpedient it may be to re-establish a similar authority.

“ TREATY OF CORDOVA.

“ Treaty concluded in the Town of Cordova on the 24th of August 1821, between Don Juan O'Donaju, Lieutenant-General of the Armies of Spain, and Don Augustin de Iturbide, First Chief of the Imperial Mexican Army of the ‘ Three Guarantees.’

“ New Spain having declared herself independent of the mother-country; possessing an army to support this declaration; her provinces having decided in its favour; the capital wherein the legitimate authority had been deposed being besieged; the cities of Vera Cruz and Acapulco alone remaining to the European government, ungarrisoned, and without the means of resisting a well-directed siege of any duration, Lieut.-General Don Juan O'Donaju arrived at the first-named port in the character and quality of Captain-General, and first Political Chief of this kingdom, appointed by his Most Catholic Majesty, and being desirous of avoiding the evils that necessarily fall upon the people in changes of this description, and of reconciling the interests of Old and New Spain, he invited the First Chief of the imperial army, Don Augustin de Iturbide, to an interview, in order to discuss the great question of independence, disentangling, without destroying, the bonds which had connected the two continents. This interview took place in the town of Cordova, on the 24th of August 1821, and the former, under the character with which he came invested, and the latter as re-

presenting the Mexican empire, having conferred at large upon the interests of each nation, looking to their actual condition, and to recent occurrences, agreed to the following articles, which they signed in duplicate, for their better preservation, each party keeping an original for greater security and validity.

“ 1st, This kingdom of America shall be recognized as a sovereign and independent nation, and shall, in future, be called the Mexican Empire.

“ 2d, The government of the empire shall be monarchical, limited by a constitution.

“ 3d, Ferdinand VII., Catholic King of Spain, shall, in the first place, be called to the throne of the Mexican empire, (on taking the oath prescribed in the 10th Article of the Plan,) and on his refusal and denial, his brother, the most serene infante Don Carlos; on his refusal and denial, the most serene infante Don Francisco de Paula; on his refusal and denial, the most serene Don Carlos Luis, infante of Spain, formerly heir of Tuscany, now of Lucca; and upon his renunciation and denial, the person whom the Cortes of the empire shall designate.

“ 4th, The emperor shall fix his court in Mexico, which shall be the capital of the empire.

“ 5th, Two commissioners shall be named by his Excellency Senor O'Donaju, and these shall proceed to the court of Spain, and place in the hands of his Majesty King Ferdinand VII. a copy of this treaty, and a memorial which shall accompany it, for the purpose of affording information to his Majesty with respect to antecedent circumstances, whilst the Cortes of the empire offer him the crown with all the formalities and guarantees which a matter of so much importance requires;

and they supplicate his Majesty, that on the occurrence of the case provided for in article 3, he would be pleased to communicate it to the most serene infantes called to the crown in the same article, in the order in which they are so named ; and that his Majesty would be pleased to interpose his influence, and prevail on one of the members of his august family to proceed to this empire ; inasmuch as the prosperity of both nations would be thereby promoted, and as the Mexicans would feel satisfaction in thus strengthening the bonds of friendship with which they may be, and wish to see themselves united to the Spaniards.

“ 6th, Conformably to the spirit of the ‘ Plan of Iguala,’ an assembly shall be immediately named, composed of men the most eminent in the empire for their virtues, their station, rank, fortune, and influence ; men marked out by the general opinion, whose number may be sufficiently considerable to insure by their collective knowledge the safety of the resolutions which they may take in pursuance of the powers and authority granted them by the following articles.

“ 7th, The assembly mentioned in the preceding article shall be called the ‘ Provisional Junta of Government.’

“ 8th, Lieutenant-General Don Juan O’Donaju, shall be a member of the Provisional Junta of Government, in consideration of its being expedient that a person of his rank should take an active and immediate part in the government, and of the indispensable necessity of excluding some of the individuals mentioned in the above Plan of Iguala, conformably to its own spirit.

“ 9th, The Provisional Junta of Government

shall have a president elected by itself from its own body, or from without it, to be determined by the absolute plurality of votes ; and if on the first scrutiny the votes be found equal, a second scrutiny shall take place, which shall embrace those two who shall have received the greatest number of votes.

“ 10th, The first act of the Provisional Junta shall be the drawing up of a manifesto of its installation, and the motives of its assemblage, together with whatever explanations it may deem convenient and proper for the information of the country, with respect to the public interests, and the mode to be adopted in the election of deputies for the Cortes, of which more shall be said hereafter.

“ 11th, The Provisional Junta of Government, after the election of its president, shall name a regency composed of three persons selected from its own body, or from without it, in whom shall be vested the executive power, and who shall govern in the name and on behalf of the monarch, till the vacant throne be filled.

“ 12th, The Provisional Junta, as soon as it is installed, shall govern *ad interim* according to the existing laws, so far as they may not be contrary to the ‘Plan of Iguala,’ and until the Cortes shall have framed the constitution of the state.

“ 13th, The Regency, immediately on its nomination, shall proceed to the convocation of the Cortes in the manner which shall be proscribed by the Provisional Junta of Government, conformably to the spirit of article No. 7, in the aforesaid ‘Plan.’

“ 14th, The executive power is vested in the Regency, and the legislative in the Cortes ; but as some time must elapse before the latter can assem-

ble, and in order that the executive and legislative powers should not remain in the hands of one body, the junta shall be empowered to legislate ; in the first place, where cases occur which are too pressing to wait till the assembling of the Cortes, and then the Junta shall proceed in concert with the Regency ; and, in the second place, to assist the Regency in its determinations in the character of an auxiliary and consultative body.

“ 15th, Every individual, who is domiciled amongst any community, shall, on an alteration taking place in the system of government, or on the country passing under the dominion of another prince, be at full liberty to remove himself, together with his effects, to whatever country he chooses, without any person having the right to deprive him of such liberty, unless he have contracted some obligation with the community to which he had belonged, by the commission of a crime, or by any other of those modes which publicists have laid down ; this applies to the Europeans residing in New Spain, and to the Americans residing in the Peninsula. Consequently, it will be at their option to remain, adopting either country, or to demand their passports, (which cannot be denied them,) for permission to leave the kingdom at such time as may be appointed beforehand, carrying with them their families and property ; but paying on the latter the regular export duties now in force, or which may hereafter be established by the competent authority.

“ 16th, The option granted in the foregoing article shall not extend to persons in public situations, whether civil or military, known to be disaffected to Mexican independence ; such persons shall necessarily quit the empire within the time which shall

be allotted by the regency, taking with them their effects, after having paid the duties, as stated in the preceding article.

“17th, The occupation of the capital by the Peninsular troops being an obstacle to the execution of this treaty, it is indispensable to have it removed. But as the Commander-in-chief of the imperial army, fully participating in the sentiments of the Mexican nation, does not wish to attain this object by force, for which, however, he has more than ample means at his command, notwithstanding the known valour and constancy of the Peninsular troops, who are not in a situation to maintain themselves against the system adopted by the nation at large, Don Juan O’Donaju agrees to exercise his authority for the evacuation of the capital by the said troops without loss of blood, and upon the terms of an honourable capitulation.

“AUGUSTIN DE ITURBIDE.

“JUAN O’DONAJU.

“*Dated in the Town of Cordova,*

“*24th August 1821.*”

The accession of such a man as O’Donaju to his party, was of incalculable importance to Iturbide. It destroyed the hopes of those, who, up to this moment, had looked for the re-establishment of the ancient order of things—it completely justified the conduct of the Spanish residents, who had in a similar manner yielded to the popular tide—and it was very naturally hailed, from the one end of the country to the other, as a confirmation of the justice and solidity of the Independent cause, when even a Spaniard in authority agreed to co-operate with them so heartily.

The capital was soon persuaded to surrender at O'Donaju's desire ; Iturbide entered it on the 27th of September, and immediately installed the Governor alluded to in the Plan of Iguala.

At this moment, O'Donaju caught the yellow-fever and died, to the great sorrow of all parties. But it is difficult to say, whether or not his death was detrimental to Iturbide's views. O'Donaju had already done all that was possible to establish the immediate objects of that chief, particularly in preventing disunion ; and it may be questioned whether he would have co-operated with him so fully when these objects came to take a more personal and ambitious direction, and when the interests of the Spanish crown were less considered.

From that period, up to the end of March 1822, Iturbide's plans were steadily carried forward, the deputies to Congress gradually drew together from the different provinces, and he had time to collect in his favour the suffrages of the remotest towns. The Trigaranti colours were worn by all classes ; and by a thousand other ingenious manœuvres, the people were gradually taught to associate their present freedom with Iturbide's celebrated Plan of Iguala, and thence, by an easy transition, to look to him, individually, for their future prosperity.

The Mexican Cortes, or Sovereign Constituent Congress, finally met on the 24th of February 1822, and one of their first, if not their very first act, was an edict, permitting all who chose it to leave the country, and allowing the export of specie at a duty of only three and a half per cent. This good faith, for it had been long before promised by Iturbide, gave great confidence to the mercantile capi-

talists, and probably decided many to remain in the country, who, had they been less at liberty to go, would have felt less desirous of remaining.

A rumour was also circulated at this time, that the Inquisition, which had been abolished by the Constitution before Ferdinand's release from France, might probably be re-established—a prospect which was no less grateful to the hopes of the clergy, than a free export of specie was to the merchants. Iturbide himself, at this juncture, condescended to espouse the cause of the army, by publishing appeals, with his name at full length, in the public prints, in favour of the merits and claims of his fellow-soldiers; thus dexterously contriving to bring all parties into the best possible humour with himself, and consequently with his administration.

On the 18th of May 1822, he presented to the Congress two Madrid Gazettes of the 13th and 14th of February, by which it appeared that the Cortes of Spain had declared the treaty of Cordova, entered into by the Viceroy, O'Donaju, to be “illegal, null, and void, as respects the Spanish government and its subjects.”

As this document is no less characteristic of the obstinate policy of the Spaniards, in all that respects South American affairs, than the foregoing treaty of Cordova is of the Mexicans, a translation is here inserted.

“DECREE OF THE CORTÈS AT MADRID.

“In the Session of 13th February 1822, the Extraordinary Cortes at Madrid approved of the following articles:—

“1st, The Cortes declare, that what is styled

the Treaty of Cordova between General O'Donaju and the chief of the mal-contents of New Spain, Don Augustin de Iturbide, as well as any other act or stipulation involving the recognition of Mexican independence by the aforesaid general, are illegal, null, and void, as respects the Spanish government and its subjects.

“ 2d, That the Spanish government, by an official communication to all such powers as are in amicable relations with it, shall declare that the *Spanish nation will at all times consider as a violation of existing treaties, the partial or absolute recognition of the independence of the Spanish American colonies*, seeing that the discussions pending between some of them and the mother-country are not yet concluded; and that the Spanish government in the fullest manner shall testify to foreign powers, that hitherto Spain has not renounced any one of the rights which she possesses over the aforesaid colonies.

“ 3d, That government be charged to preserve, by all possible means, and reinforce with all speed, those points in the American provinces which still remain united with the mother-country, obedient to her authority, and opposed to the mal-contents; proposing to the Cortes such resources as it may require, and which it has not at its own disposal.”

This was, undoubtedly, what Iturbide, knowing the temper of the court of Madrid, had expected. The Mexican Congress, together with the inhabitants and the troops, immediately decided, “ That, by the foregoing declaration of Spain, the Mexican nation was freed from the obligations of the treaty of Cordova, as far as Spain was con-

cerned; and that, as, by the third article, the Constitutional Congress were left at liberty, in such event, to name an Emperor—they thought fit, in consequence, not only in pursuance of their own opinion, but in accordance with the voice of the people, to elect Don Augustin de Iturbide the First, Constitutional Emperor of Mexico, on the basis proclaimed in the Plan of Iguala, which had already been received throughout the empire.”

The Congress of Mexico issued a manifesto to the people on the elevation of Iturbide to the throne. Most of it consists of mere words and declamation; but there is one paragraph evidently written from real feeling—at least it exactly defines Iturbide’s character, such as it was generally represented in Mexico, while I was in that country. The passage is as follows:—

“ His love of liberty, his disinterestedness, his dexterity, and political skill in uniting conflicting interests, his capability in affairs of state, were so many attractions to call forth your admiration, and to excite the interest and affection which you have professed for his person from the time he commenced his glorious career.”

The Emperor and the Congress did not long agree. Conspiracies were formed amongst the members; arrests and trials took place, and violent resolutions were passed; public business was entirely neglected, and the Congress gave themselves up to personal squabbles and recriminations against the Emperor. At length, on the 30th of October 1822, Iturbide dissolved the assembly by force, and formed a new one, called the Instituent Junta, consisting of forty-five members of the Congress. An insurrection shortly afterwards broke

out, under an officer of the name of Santana, a strenuous republican; and a document, known by the name of the "Act of Casa Mata," was published on the 1st of February 1823 by the chiefs of that insurrection. By this act, it was decided that the Congress should be reassembled, notwithstanding their dissolution by the Emperor; but the chiefs took upon them to proscribe certain deputies, and directed the provinces to elect members more suitable to their views. Iturbide, feeling himself unequal to resist the tide of republicanism which was setting against him, and not choosing to hold his authority under these chiefs, re-assembled the Congress, abdicated the throne, and requested permission to retire from the country. His presence, as he states in his pamphlet, might have proved prejudicial to the country, by exciting the people to civil war.

"There will not be wanting persons," says he, "who will charge me with a want of foresight, and with weakness in reinstating a Congress, of whose defects I was aware, and the members of which will always continue to be my determined enemies. My reason for so acting was this: I wished to leave in existence some acknowledged authority, knowing that the convocation of another Congress would have required time; and circumstances did not admit of any delay. Had I taken any other course, anarchy would inevitably have ensued, upon the different parties showing themselves, and the result would have been the dissolution of the state. It was my wish to make this last sacrifice for my country."*

* Iturbide's Statement, p. 88, published in London.

Iturbide, thus forced to leave Mexico, accordingly went to Italy, where he resided till the end of 1823, when he came over to England. On the 11th of May 1824, he again sailed for Mexico from Southampton, having been urgently solicited to do so by his countrymen, "who," to use his own words, "considered his presence as necessary to the establishment of unanimity there, and to the existence of Government."* The result proved, that Iturbide's decision was unwise:— that it was patriotic and disinterested, I have not the smallest doubt; and as yet there has not appeared the least reason for suspecting that his views had any other object than the service of his native country, Mexico, and of resistance to Spain, or any other nation which might seek to reconquer that country.

The following is the most distinct account which I have been able to collect of Iturbide's proceedings, up to their fatal termination:—

Iturbide was called to London from Italy by many reasons, which he considered important to the Mexican nation; he believed that his presence in Mexico was the only means of uniting the many divided opinions, and of organizing an army which could oppose the invasion which Spain would probably attempt as soon as Ferdinand VII. should be re-established in the plenitude of his power, by the assistance of France and other nations. Iturbide was of this opinion, in relation to the expected invasion, and being desirous of assisting his country, even at the sacrifice of all that was dear to him, he sent for his family, then at Leghorn, and in the

* Preface to Iturbide's Statement, p. 15.

meantime busied himself in making the necessary preparations for his voyage;—such as procuring a vessel, borrowing money, seeking for a fit person to conduct him to Mexico, and other arrangements.

As soon as his family arrived, he placed his six eldest sons at proper schools, and with his wife, his two youngest sons, two chaplains, a nephew, two strangers, (one of whom had before been in his service in Mexico,) and four servants, he embarked at Southampton in the brig *Spring*, on the 11th of May 1824.

On the 12th of July he arrived off the Bar of Soto la Marina, at which time he was necessarily ignorant of the decree of the Mexican government, dated the 28th of April, since it was published only thirteen days before he left England. By this decree, he was declared to be “a traitor out of the pale of the law, and liable to be instantly put to death, if he should set foot on the territory of the Mexican Federation.” Neither was he aware in what light a communication had been received, addressed by him from London, under date of the 13th February, to the Mexican Congress, offering his services as a simple military man, should the nation deem them useful; and that, for the furtherance of this object, he had departed from Italy, in the month of November 1823.

He accordingly caused Lieutenant-Colonel Don Charles Beneski to go to Soto la Marina and obtain information, charging him particularly to ascertain if General Don Felipe de la Garza was in that province, as he had left him at his departure. This General was the first who, while Iturbide was Emperor in Mexico, proclaimed the Republic in the province of Santander; but troops having marched

against him, he abandoned those who had followed him, and presented himself to Iturbide, who pardoned him, spared his life, and reinstated him in his honours and employment. In return for this generous action, Iturbide, no doubt, thought that Garza would be grateful, and protect his landing, and assist his subsequent operations.

Beneski returned on the morning of the 16th of July, without having discovered how much Iturbide was in danger, but rather bringing favourable information, which, added to the knowledge that Garza commanded in that quarter, made him determined to land the same evening, attended only by this officer. He instructed the other persons who remained on board, attached to him, to hold themselves in readiness to follow as soon as they should be ordered to do so. They then proceeded to the first town, where they were to take horses, and Beneski set about procuring them. Iturbide remained in the boat near the river side, with his face covered to his nose with his handkerchief, a disguise which he used, because he wished to present himself before Garza by surprise, and, until then, not to be recognized. This circumstance, however, called the attention of the people, who were struck with his appearance, and among those who drew near to see him, was a merchant of Durango, who recognized him as he mounted his horse. He immediately informed the Alcalde, who sent four soldiers to follow Iturbide to a town called Los Arroyos, where he intended to pass the day, and thence proceed by night to Sotto la Marina. The soldiers remained quiet, and said nothing in his presence. Several communications as to what was going on had been sent to Garza, and on the

evening of the 16th, this general, with two adjutants and eight soldiers, arrived at the place where Iturbide was. They embraced each other, and after a secret conference, they all set out for the town of Soto la Marina, where they arrived on the morning of the 17th.

Iturbide and Beneski were immediately put in prison, and at twelve o'clock of that day one of Garza's adjutants came to announce to them the sentence of death, agreeably to the decree of proscription which the Congress had passed on the 28th of April, the very day on which they received and read his exposition of the 13th of February. The adjutant informed them that at three o'clock that afternoon the sentence would be put in execution. Iturbide requested that three days might be allowed him, to arrange his family and other concerns, although, before he left the brig, he had made some dispositions, in the event of his dying before he could rejoin his friends.

As Garza wished to save Iturbide's life, he declared to the local authorities, that the law which condemned him to death ought not to attain him, if he were totally ignorant, as he must have been, of its existence; and therefore ordered that they should go to Padilla, where the National Congress was assembled, and where this circumstance would, of course, be taken into consideration. The whole party, therefore, set out with an escort of about one hundred militia, no regular troops being there, at three o'clock in the afternoon, and without stopping, they travelled until the morning of the 18th, during which time Iturbide and Garza had frequent and long conferences, the object of which no doubt was, that Garza should call a meeting of the offi-

cers, put them under the command of Iturbide, and harangue the troops, exhorting them to follow the only person who could save the country and make them happy. They all agreed to this, and Garza returned to Soto la Marina, with the intention of making the necessary arrangements for the new operations. But on his arrival there, he received letters from the inhabitants, disapproving of his conduct. This determined him to return immediately to the place where Iturbide was.

Iturbide had proceeded towards Padilla, and on his approach to that city, sent an officer to the President of the Congress, begging him to call a meeting of that body, and soliciting him, in the name of his country, to listen to the reasons which had induced him to return to Mexico; assuring him, at the same time, of his determination to obey the will of the nation without any restriction whatsoever.

While waiting for an answer to this communication, Garza, who had just returned, approached him, and said it would be necessary for him to enter as a prisoner, until he, Garza, could speak to the Congress. To this Iturbide consented, and at eight o'clock on the morning of the 19th, they all entered Padilla together. Here Iturbide was put under a guard of twenty men and an officer, and conducted to one of the first houses of the town. Garza then went to the Congress, where he found assembled the seven voters who then composed that body. He immediately addressed them, and dwelt with much force on the reasons which ought to induce them to save Iturbide—stating as the principal one, that on coming ashore he knew nothing, and, indeed, could know nothing, of the de-

eree, which was the only one against him ; and, therefore, that he ought to be allowed to embark again with his family ; of course under the obligation of not returning to the territory of the Mexican Republic.

But this body, composed of men not the most enlightened in the world, and only lately placed in such high stations, were unmoved by these arguments, and would give no other decision but that he must die forthwith, agreeably to the act of Congress ; and imperiously ordered Garza to have him shot on the same afternoon.

While Garza was thus addressing the assembly to so little purpose, Iturbide was busied in writing a third exposition to the General Congress of Mexico, in which he recapitulated the many services he had rendered the nation, since he had proclaimed the Independence at Iguala ; together with a detailed examination of his public conduct, in which he could not perceive what atrocious crime he had committed to deserve the punishment of death. This memorial was sent to Congress accordingly ; but at five o'clock in the afternoon of the same day, and before his memorial had gone many miles, the sentence of death was intimated to Iturbide for the second time, and that it would be executed at six o'clock.

To put this sentence in execution, the hundred men from Soto la Marina, and about fifty more who were in Padilla, were formed in the public Plaza, and a picquet of twenty, under an adjutant, conducted Iturbide to the place of execution. As he was taken from the house where he was confined, he requested that he might be permitted to be seen by the people, and he appeared to look

eagerly around him. He asked how many soldiers were to fire at him, and being informed that four had been ordered, he said they were too few, and requested that three more might be added. He then desired to be led to the place where he was to be shot. No preparations had been made; and on reaching the spot, he asked for a handkerchief, with which he bound his eyes himself. The attendants next proceeded to tie his hands; this he at first resisted, but being informed that compliance would be enforced if he did not willingly grant it, he quietly permitted himself to be bound, and proceeded to the place of execution. There addressing himself to the soldiers, he spoke thus—"Mexicans, at the very moment of dying, I recommend you to love your country, and to observe our holy religion; these will conduct you to glory. I die for having come to help you, and I die happy because I die amongst you. I die with honour, and not as a traitor. That stain will not rest upon my sons, and their descendants. I am no traitor. Be subordinate and obedient to your chiefs in executing what they and God may command. I do not say this from vanity, for I am far from vain." Having said this, he knelt down and raising his voice, he said, "I pardon all my enemies with all my heart." He had hardly uttered these words, when the soldiers taking aim, discharged their muskets, and Iturbide died. His body was then conveyed to the house where he had been detained in the morning, and on the 20th of July 1824, it was buried in an uncovered church, without the customary ceremonies, and even without a coffin.

Thus terminated the career of this ill-fated, and ill-advised chief. To those who were personally

acquainted with him, and believed him honest and patriotic, however indiscreet, (of which number I acknowledge myself one,) his death is subject of sincere regret, on his account, and that of his family. At the same time, it is impossible to deny, that the existing government of Mexico has been much more firmly established by this vigorous measure, than it ever was before; so that Iturbide's death, just or unjust, has materially contributed to the present political tranquillity of that country, and his fate, therefore, on public grounds is not to be lamented.

In Mexico, the capital, the news seems not to have been welcomed with any unseemly exultation over a fallen enemy, or any tumultuous feeling of recovered security. The Mexican papers only publish the official bulletins, and give not a word of comment for the first three days. On the 29th of July the following temperate and generous remarks appear in the *Sol*, a Mexican Journal.

“We have received various communications relative to the death of Iturbide; but we think that we ought to insert none of them in our paper. Humanity and policy equally counsel us not to disturb the ashes of the dead. His misfortunes ought to make us forget his previous conduct, since he has expiated by his death whatever offences he may have committed against his country. Such at least shall be our conduct on the present occasion. As long as Iturbide lived and was dangerous, we constantly endeavoured to expose the manœuvres of his partisans, to put the nation on its guard against them, and events have confirmed our predictions. He is now dead, and his circumstance changes the state of things. Let us commiserate his mis-

fortune, and let us endeavour to sink into oblivion the mournful divisions into which we were about to be plunged.—Let this be the epoch of reconciliation ; and forgetting the number of parties which drag us to our ruin, let there be no party but the nation—no desire among us but that of consolidating its beneficent institutions.”

The Congress and the Executive Government seem to have been actuated by the same feelings of moderation and mercy. While addresses were arriving from the provinces, congratulating them on the adventurer's fate, we find a considerable party in the Congress disposed to provide liberally for his widow and children. On a proposition being made in the sitting of the 27th of July 1824, to authorise the Government to send his widow and her children out of the country to any place they thought proper, many members delivered their opinions. The Minister for Foreign Affairs said that the Executive Government was far from wishing to aggravate the misery of an unhappy family ; but it was considered, that till their institutions were consolidated, it might be dangerous for this family to inhabit the republic of Mexico, or any place from which they might easily return to it. A Senor Bustamante was of the same opinion. He thought that the factious should not be allowed such a rallying point as the eldest son of the Pretender, who he heard was of perverse inclinations, and disposed to follow up his father's tyrannical ideas. Several members admitted the propriety of banishing the family, but denied the right of Congress to fix their residence in another country. After a good deal of discussion, the first article for empowering the Government to dispose of the Ex-Emperor's fa-

mily was agreed to. On the next day, the debate was resumed on the mode of disposing of Iturbide's widow and children, when the following proposition was made and discussed, namely,—“The Government shall punctually pay to Dona Ana Hecarte, 8000 dollars annually; and her children, on her death, shall enjoy a corresponding allowance under the rules of military pensions.”—Several members supported this proposition, on the ground that the crimes of Iturbide furnished no reason why his family should be deprived of the decent provision made by an anterior Congress. Public decency dictated that some provision should be made for persons who were, for reasons of state, condemned to reside out of their native land. One member proposed as an amendment, that the above sum of 8000 dollars should be allowed, but be lodged in the bank of Philadelphia, and drawn only so long as the family should reside in the Republic of Colombia. The Secretary of State for Foreign Affairs saw no reason to oppose this amendment. The Government would of course reserve to itself the right of withdrawing the pension, if the family neglected to observe the condition of residence on which it was granted. Two members objected to the granting of any pension, on the ground that other widows and orphans deserved better of the Republic, and ought to have their claims first attended to. The first part of the proposition, granting the pension to Madame Iturbide, was agreed to. The latter part of it, extending the same to her family after her death, was postponed for further consideration.

CHAPTER XLVIII.

STATE OF THE PUBLIC FEELING IN MEXICO WITH RESPECT TO NATIONAL INDEPENDENCE—ITURBIDE'S VIEWS WITH RESPECT TO THE REVOLUTION IN MEXICO—EXCELLENT CHARACTER OF THE SPANIARDS, CONSIDERED INDIVIDUALLY.

It has sometimes been thought by strangers, that the South Americans generally were indifferent to the independence of their country, and that a great European force, by encouraging and protecting the expression of contrary opinions, might, ere long, succeed in re-establishing the ancient authority. This, I am thoroughly convinced, is a mistake, and he who should reason by analogy from the fate of Spain to that of South America, if exposed to the same trial, would confound two things essentially dissimilar. Were he to suppose that the cry of "Viva la Independencia," in the one, and "Viva la Constitution," in the other, are indicative of an equal degree of sincerity and of right apprehension of these subjects, he would be greatly in error. There is this important distinction: the greater number of those people in Spain who called out for the constitution, knew very imperfectly what they were asking for; whereas, every individual in the new States of South America, however ignorant of the true nature and extent of civil liberty, or however

indifferent about other political matters, is strongly possessed of the same clear, consistent, and steady conception, of what National Independence means ; and well knows its important practical consequences. It is because these sentiments are universal, and receive every hour more and more strength and confirmation, from every incident, fortunate or otherwise, which arises, that I venture to speak so decidedly of the utter impossibility of again reducing to political and moral thralldom so vast a population, every member of which is at length fully awakened to a sense of his own interest and honour.

In all companies, the conversation invariably turned on political topics ; and it was very curious to observe, amidst much prejudice and error in reasoning, and much exaggeration and mis-statement of facts, how justly every one felt on the occasion, and with what delight they exercised the new privilege of uttering their thoughts freely ; a privilege, it may be remarked, which is at once cause and effect : since we know, that in former times, when no freedom of speech was permitted, the faculty of thinking to any purpose was equally repressed. These are truths which, though mere common-places, are not, on that account, the less interesting to see confirmed in practice. At this time every one not only took a pride in saying what his opinions were, but seized every opportunity that occurred, or could be devised, to manifest his political sincerity. The borders of the ladies' shawls were wrought into patriotic mottos ; the tops of the newspapers and play-bills bore similar inscriptions ; patriotic words were set to all the old national airs ; and I saw a child a few days old munch-

ing a piece of gilt gingerbread, stamped with the word *Independencia!*

I am aware that all this show proves little; and that nothing is more unsubstantial than this sort of verbal enthusiasm, which evaporates at the first show of opposition; and certainly taken singly, it would be of small moment in a political point of view, however amusing to witness on a great scale. But it is no bad accompaniment to successful action, and helps to keep alive the new-born spirit of independence, when other and more important causes are ready to give practical effect to the sentiment.

Patriotic exertions are always thought more highly of when viewed from a distance, than when examined closely. But, even in the eyes of those who are present, the interest which a show of patriotism excites is often at first of a very lively character. This dazzling effect, however, speedily goes off: the real characters and motives of the actors become so well known to us, that the fictitious representation of pure, disinterested, public spirit, no longer pleases; and at last we see little in this revolutionary drama that is acted to the life, but the cruelty and the sorrow.

In the case of the Mexican Revolution, Iturbide endeavoured to conciliate all parties, and tried, by various means, to unite the interests of the Old Spaniards with those of the natives: but the result of the experiment shows how vain all such attempts are. It was, in fact, entirely contrary to the habits of the Spaniards, to for a solid friendship with the people over whom they had so long held absolute dominion: it was equally contrary to the feelings of the Americans to repose confidence in those who

had never trusted them. It is due, however, to Iturbide, to say, that by the idea of uniting the two heartily together, the blow which was sure to fall eventually on the heads of the Spaniards was deferred ; and more time was given for them to wind up their affairs, and render their fate as little severe as possible. If this was really the object, the device of the three Guarantees, which Iturbide fell upon, was ingenious and statesmanlike.

Since the Second Edition of this Work was printed, I had the satisfaction of conversing with Iturbide himself in London, just before he sailed for Mexico, where he lost his life ; and I was gratified to learn from his own mouth, that, as far as his motives and conduct were concerned, my statements were accurate.

But the poor Spaniards had a very difficult task to perform, and, upon the whole, they did not execute it well. For they could not bring themselves to make a sincere effort to deserve the good-will of the Americans, but viewed, with mortification and envy, the growing prosperity of the country, no longer exclusively theirs. They felt the foundation of their own fortunes gradually slipping from them ; and having been habituated to the enjoyment of exclusive privileges, could not reconcile themselves to share their fortunes and long established rights, with their former dependents. Being conscious that these feelings rendered them unworthy of confidence, they naturally inferred, that in reality they were not trusted. In this frame of mind, they lived in constant dread of popular vengeance, and often gave way to terrors from causes insignificant, or imaginary. When they met together, they never failed to augment one another's

fears, by repeating stories of the threats and insults they had met with ; and spoke of the various symptoms of enmity on the part of the free Americans, who, they said, were only waiting for an opportunity to expel them from the country.

The correspondence also which they maintained with all parts of the interior contributed, in a remarkable degree, to heighten these feelings of alarm ; since it was impossible to investigate every idle report which came from a distance. They were also absurdly unguarded in the terms which they used in speaking of the native inhabitants of the country. They delighted, for instance, in conversation to contrast their own “ superior illustration” with the “ ignorancia barbara” of the Mexicans ; and if any one of us, who were indifferent parties, ventured to insinuate, that this ignorance of the natives might, perhaps, have been produced by the manner in which the country had been governed ; and that, possibly, there might be much intellectual wealth among the inhabitants, though the mines, in which it was hid, had never been worked—they would turn fiercely upon us and maintain, that the people of whom we spoke were incapable of being educated. If we further suggested that the experiment had never been fairly tried, they flatly denied the fact, and declared there was nothing in the laws which prevented a native from obtaining the same knowledge, wealth, and power as a Spaniard. But this assertion is not to the purpose : for whatever the laws may have been, we know well what the actual practice was ; and even where exceptions occurred, the argument of the Spaniards was not strengthened. Whenever a native did rise to wealth or consequence, he became,

from that instant, virtually a Spaniard; and derived his riches by means of monopolies, at the expense of the country; and as he obtained power, solely by becoming a servant of the government, he merely assisted in oppressing his countrymen, without the possibility of serving them.

Much, however, in fairness, is to be said in excuse for the sinking race of Spaniards in those countries. They undoubtedly were far better informed men, more industrious, and more highly bred than the natives, taken generally, at the period of our visit. As merchants they were active, enterprising, and honourable in all their dealings. It was only on the national question between them and the natives that they were illiberal. Towards those with whom they were acquainted personally, or with whom they had business to transact, they were always fair and reasonable. They were much less tainted with bigotry than the natives; and they were men of pleasing conversation and manners, and habitually obliging; and when not pressed by immediate danger and difficulties, particularly so to strangers. Notwithstanding their habitual jealousy, their prejudices never interfered with their cordial hospitality, and even generosity to all foreigners, who treated them with frankness and confidence.

A Don, it is well known, is the most stately of mortals, to those who behave to him with hauteur or reserve; but to such persons as really confide in him, and treat him, not precisely in a familiar manner, but in what they term "un modo corriente," he becomes as cordial and open as any man. The above Spanish phrase describes the manners of a man, who, without departing from his own natural character, is desirous of pleasing, and

willing to take all things as he finds them, and in good part.

The judgment which men form of national questions is often irresistibly influenced by the feelings of private friendship, which they bear to a few of the individuals of that nation ; and although I have said nothing of the Spaniards, which is not perfectly notorious to all the world ; and which no liberal Spaniard that I have met with has attempted to deny, I feel considerable remorse for using such ungracious terms, however just, in speaking of a class of society, to very many of whom I am indebted for much disinterested kindness, and for whom I shall always retain the sincerest esteem and respect.

Persons removed, as in England, to a great distance from the scene, are too apt to err on the other side ; and to overlook, altogether, the sufferings of men, who, taken individually, deserve no such hard fate as that which has lately befallen the Spaniards. We forget that whatever the national injustice may have been with which the colonies have been administered, the existing Spanish members of the society in America came honestly by their possessions and privileges. We make no allowance for their personal worth and claims, but see without regret the property rightfully possessed by a whole class of deserving persons, rudely transferred to other hands ; who take advantage of the times, to seize on it under the pretence of an abstract right. Sometimes too, in no very charitable spirit, we permit ourselves to derive a kind of ungenerous satisfaction, when we think of the mortification and sorrow with which the ruined Spaniards have been thus rudely expelled from

America,—as if it were just, suddenly to visit the accumulated errors of three centuries on the heads of the last, and perhaps the least offending generation.

A personal acquaintance, as I have said, with a few of the suffering individuals, softens down these illiberal sentiments, in a wonderful degree; and begets a more considerate and charitable way of thinking. This kindly feeling towards the members of the sinking party, which in no degree blinds the judgment to the true merits of the great question of Independence, is perhaps the chief satisfaction, though it be a melancholy one, which results from seeing things with one's own eyes, and on the spot; instead of viewing them at a distance, and through a medium wilfully coloured by interest, prejudice, and passion.

CHAPTER XLIX.

SAN BLAS IN MEXICO.

EMBARKATION OF TREASURE ON BOARD THE CONWAY—BENEFICIAL EFFECT OF SUCH SHIPMENTS ON COMMERCE—INTOLERABLE HEAT OF SAN BLAS, AND TORMENTING CLOUDS OF INSECTS—SICKNESS AND DEATH OF A CHILD—PEDANTRY OF A BARBER SURGEON.

ON the 5th of May, I left Tepic for San Blas, in order to be present when the treasure for England should be put on board the Conway.

The officers, as well as myself, took leave of the interior without much regret; for, notwithstanding the many kind attentions which we had met with, it was impossible to disguise from ourselves, that we were all, more or less, objects of constant suspicion to the inhabitants, roused by circumstances into a high degree of political excitement. In such times, party-spirit is a feeling which must belong to every individual forming the society; an impartial stranger, therefore, who does not, and indeed cannot, enter fully into the enthusiasm of the moment, is a sort of intruder; his indifference is always mistaken for ill-will; and because he does not take part with either, both look upon him as unworthy of confidence. At first, it was not uninteresting to see a whole

community so much in earnest upon one topic ; but this became rather irksome, when we could no longer maintain a correspondent degree of animation on the subject. As soon as the novelty had gone by, we were looked upon as sober men in an intoxicated company ; spies, as it were, upon the extravagance of those in whose dissipation we did not choose to participate.

On the 6th of May, more than half a million of dollars were embarked in the Conway ; and on different days during the month, other large sums, all destined for London. Some of the treasure was sent by Spanish merchants, a small quantity by Mexicans, but the whole intended for the purchase of British goods.

When money is shipped, a set of bills of lading are signed for the amount. These bills, which are immediately sent to England by various opportunities, become negotiable in the European market, and may be transferred to other hands. The treasure is insured in London the instant advices arrive of its being actually shipped ; thus the consignee, or the holder of the bill, in Europe, becomes certain of his money in the course of time, whatever be the fate of the ship. If she arrives safe, he receives the identical hard dollars ; if not, the insurers make up the loss. Thus, it is interesting to remark, the instant accounts are received that gold or silver has been placed on board a ship of war, at ever so great a distance, its representative, the bill of lading, acquires an exchangeable value in the London market. It may, and sometimes does happen, that part of the returns, in the shape of goods, actually reaches South America before the money itself has arrived in England. There is, perhaps, no

instance in which the beneficial influence of insurance on commerce is more obvious than in these shipments of treasure.

We experienced a great difference between the climate of San Blas and that of Tepic, especially at night. At both places it was disagreeably hot during the day, but at Tepic, which stands on an elevated plain, the thermometer fell 15° or 20° at night, whereas at San Blas, which is close to the sea, there was much less variation of temperature. Throughout the day, it was generally, in the coolest part of the shade, about 90° , sometimes, for several hours, 95° . The reflection from the walls, and from the ground, made the air in the open streets often much hotter, and I have several times seen it above 100° . The highest temperature, however, in a shaded spot, was 95° . At night, the thermometer stood generally between 80° and 85° . Between ten and eleven o'clock in the morning, the sea-breeze began to set in. None but those who have felt the bodily and mental exhaustion caused by the hot nights and sultry mornings of low latitudes, can form a just conception of the delicious refreshment of this wind. For some time before it actually reaches the spot, its approach is felt, and joyfully hailed, by people who, a few minutes before, appeared quite subdued by the heat; but who now acquire a sudden animation and revival of their faculties; a circumstance which strangers, who have not learned to discover the approach of the sea-breeze, are often at a loss to account for. When it has fairly set in, the climate in the shade is delightful; but in the sun, it is scarcely ever supportable at San Blas. Between three and four o'clock, the sea-breeze generally dies away; it rarely lasts till five.

The oppression during the interval of calm which succeeds between this period and the coming of the land-wind, baffles all description. The flat-roofed houses, from having been all day exposed to the sun, resemble ovens; and as it is many hours before they part with their heat, the inhabitants are sadly baked before the land-wind comes to their relief.

During the morning, the thorough draught of air, even when the sun is blazing fiercely in the sky, keeps the rooms tolerably cool; but when the breeze is gone, they become quite suffocating. The evil is heightened most seriously by clouds of mosquitoes, and, what are still more tormenting, of sand-flies; insects so diminutive as scarcely to be distinguished, till the eye is directed to the spot they settle upon by the pain of their formidable puncture. San Blas, as mentioned before, is built on the top of a rock, standing in a level, swampy, and wooded plain. During ordinary tides in the dry season, this plain is kept merely in a half-dried, steaming state; but at spring tides, a considerable portion of it is overflowed. The effect of this inundation is to dislodge from the swamp myriads of mosquitoes, sand-flies, and other insects, which had been increasing and multiplying on the surface of the mud during the low tides. These animals, on being disturbed, fly to the first resting-place they can find; and the unhappy town of San Blas, being the only conspicuous object in the neighbourhood, is fairly enveloped, at the full and change of the moon, in a cloud of insects, producing a perfect plague, the extent of which, if properly described, would scarcely be credited by the inhabitants of a cold climate. The most seasoned native fared in

this instance no better than ourselves; and we sometimes derived a perverse sort of satisfaction from this companionship in misery; and laughed at seeing them rolling about from chair to chair, panting under the heat, and irritated into a fever, by the severe and unintermitted attacks of their indefatigable tormentors. I cannot say which was worst, the unceasing buzz, and fierce sting, of the mosquito; or the silent, but multiplied assaults, of the sand-flies, which came against the face, as I heard a miserable wight exclaim one evening, like handfuls of sand. Mosquito curtains were not a sufficient defence against these invisible foes; and there was nothing for it, therefore, but to submit. It is perhaps worthy of remark, that those persons invariably suffered most who were least temperate in their diet; and that the water-drinkers, that rare species, were especially exempted from the feverish discipline of these attacks. It was perfectly out of the question to try to get any sleep before the land-wind set in; but this refreshing breeze often deceived us, and, at best, seldom came before midnight; and then, having passed over the hot plain, it reached us loaded with noxious and offensive vapours from the marsh. But this evil was considered as trifling, since it served to disperse the sand-flies and mosquitoes, and gradually acquired a degree of coolness, which allowed us to drop asleep towards morning—worn out with heat, vexation, and impotent rage against our tormentors.

Some days after I came to San Blas, the chief secretary of the government called, to request that the surgeon of the Conway might be allowed to visit his sick daughter, a little girl of three years of age. I sent to the ship for the doctor, and ac-

accompanied him to the house, where we found the child not so ill as the father's fears had imagined. Mr Birnie thought that with proper care she might recover ; and being obliged to go on board himself, he sent medicines on shore, which I carried to the child. I was in the first instance prompted by the desire of being civil to a person who had shown great attention to the officers during my absence at Tepic ; and I was glad also to have an opportunity of seeing the interior of a New Galician family. But I soon acquired a far deeper interest in the case, by the increasing illness of our little patient, one of the prettiest and most engaging children I ever saw. The doctor, at my request, visited her as often as he could come on shore ; but as he was in close attendance upon several yellow-fever patients, not only in the Conway, but in the merchant-ships in the anchorage, the task of watching the child's illness fell principally upon me. The poor parents would not believe, notwithstanding my reiterated assurances, that I knew nothing of medicine : but it was too late to draw back at this stage of the case, since it was through me alone that any report could be communicated to the medical gentlemen on board. Yet I saw with much regret that the whole family were becoming more and more dependent upon me. They sent for me at all hours of the day and night, whenever there was the least change ; and although they must have seen that I could do them no good, they still wished to be encouraged to hope the best. In so small a town, and where there was no physician within twenty miles, every eye was turned upon us, which made the case a still more anxious one. If the child recovered, indeed, we should have been

certain of the respect and the esteem of the society : but, on the other hand, if she died, as we began to fear she soon must, the effect of our interference was much to be dreaded on the minds of people habitually distrustful of strangers. There was clearly nothing for it now, however, but to go through with the matter ; although it was too obvious that in spite of our care, the child was daily getting worse. As all the old women in the town had given the case up as hopeless—and they were the only pretenders to medical knowledge in the neighbourhood—our endeavours were watched with uncommon anxiety, and became the universal topic of conversation, even as far as Tepic.

Late one night, I was called out of bed by a breathless messenger, who came to say the child was much worse ; and that I must come down to the secretary's house immediately. I found the infant in its mother's arms, with its eyes closed, and the sickly hue of its skin changed to a pure marble whiteness : indeed, it looked more like a statue than a living being, and was evidently dying. The poor father, who still fondly rested his hopes on my opinion, accompanied me to the room, and watched my looks with the most melancholy anxiety. On catching from the expression of my countenance, when I beheld the infant, what was the nature of my thoughts, he took a last miserable look at his child, and rushed into the streets. I saw him no more till long after all was over, and I had returned to my house ; when I observed him at a distance, bare-headed, and running, in a distracted manner, away from that part of the town in which his house lay. Meanwhile, the mother, more true to her duties, sat upon the bed, and

from time to time pressed the infant's cheeks, and tried to raise its eyelids, earnestly supplicating it to speak once more.—“Dolores!—my little Dolores, don't you know your own mother?”—“Dolores!—Dolorcita!—no conoces à tu madre?” are words I never shall forget. I sat down by her, and she made me touch its cold cheek—accustomed, poor woman, to derive consolation from the encouragement I had formerly given to her hopes—I did as she desired, but the child was gone.

The funeral, as is usual in Catholic countries, when a child under seven years of age dies, was a sort of merry-making; it being considered a source of rejoicing that an innocent soul has been added to the number of angels. The effect, however, I must say was very distressing. The respect I felt for the family, and the curiosity I had to see the ceremony, were barely sufficient motives to retain me in the procession; where fiddles, drums, and fifes, played merry tunes round the bier; while the priests chanted hymns of rejoicing at the accession which had been made to the host of little angels.

The effect of our failure on the minds of the people was the very reverse of what we had anticipated; for both the surgeon and myself were ever afterwards treated by all classes of the society with a more marked, respectful, and even cordial attention than before: and whenever the circumstance was spoken of, the exertions we had made, though unsuccessful, were everywhere duly felt and acknowledged. The poor father could set no limits to his gratitude; and at last we were obliged to be careful, when in his presence, how we expressed a

wish for anything ; as he never failed, upon discovering what was wanted, to send at any cost, and to any distance, to fetch it for us. When I was coming away, some weeks afterwards, he insisted upon my accepting the most valuable curiosity he possessed, and which he had cherished with care for fifteen years—a beautiful bird of the country, celebrated all over the province of New Galicia, and considered as the finest specimen of its kind ever seen.

I now made a firm resolution to meddle no more with the practice of medicine ; and had just declared my regret at having been induced, on any account, to place myself in the way of responsibilities, which I could not bear with a safe conscience ; when a man burst into my room, and exclaimed, that I was wanted immediately, as a young woman was dying, a few doors off ! I said I was no doctor—knew nothing of medicine—and could not possibly follow him—but that I would send off to the ship. “ No, no,” cried the man, “ that won’t do—no time is to be lost—the girl will die—and her blood will be on your head if you delay a moment ;” and he dragged me along with him to a house, where a girl, about sixteen years of age, was lying in a state of insensibility. I was received with infinite joy by the numerous matrons assembled round the bed, who insisted, with one voice, on my saying what was to be done. They told me she had accidentally fallen backwards down some steps, and had pitched her head against a stone, since which she had lain in the state I saw. “ Médecin malgré moi,”—I was forced to do something, and, aware of the advantage of bleeding in such cases, I said the girl ought

to be bled at once, and told them to send for the person usually employed on such occasions, who it appeared was the principal barber.

A long time elapsed before he made his appearance, and when he did arrive, he showed no disposition to make up for this delay ; but insisted upon telling the company at great length, how much provoked he was to have been disturbed in the middle of his siesta. I took the liberty of urging him repeatedly to defer the story till after he had bled the girl ; but as this produced no effect, I said, at length, that unless he began immediately, we must employ some one else to do it instead. This put him a little on his mettle, and he very pompously called for a ribbon, a towel, a handkerchief, a candle, and a basin. These being brought and ranged before him, he drew forth his case of lancets, examined five or six with most pedantic deliberation, and, after many minutes delay, selected one ; he then tied up the arm, drew it out at full length, and folded it up again till the fingers touched the shoulder ; this he repeated several times, without seeming at all disposed to go any further ; upon which we insinuated to him, that if the girl died through his preposterous delays, he should be held responsible. This roused him a little ; and having bared the arm, he first wet it, and then, in the rudest manner possible, rubbed it with a coarse towel from the wrist to the elbow, till the skin was much abraded. At last he touched the vein with his lancet, after slowly making the sign of the cross three times over the place. Owing to the violent manner in which he had bound up the arm, he had stopped the artery, as well as the vein, and no blood flowed until he

had loosened the bandage—then he relaxed it too much—in short, the operation was perhaps never less skilfully performed. The effect, however, was in the end most satisfactory, for the girl gradually recovered as the blood flowed, till in the course of five minutes she regained her senses completely. Next day she was quite well; and thus, in spite of all my endeavours, my reputation as a doctor was as fully established in San Blas, as if I had graduated at Salamanca.

CHAPTER L.

SAN BLAS.

RESULT OF EXPERIMENTS WITH THE PENDULUM—
POPULAR COMMOTION—CREDULOUS PRIEST—MI-
NING SPECULATOR—PERIODICAL DEPARTURE OF
THE INHABITANTS FROM SAN BLAS—COMMENCE-
MENT OF THE RAINY SEASON—TROPICAL THUN-
DER STORM—CONWAY LEAVES THE COAST OF
MEXICO.

As the treasure to be shipped on board the Conway came at intervals of a week or ten days, I took advantage of these leisure moments to erect an observatory; where my assistant Mr Foster, and I, repeated the experiments made at the Galapagos. The result gives the length of the seconds pendulum at San Blas, 39.03776 inches, and the ellipticity $\frac{1}{313.55}$ *

The commandant at San Blas, greatly to our comfort and happiness, was a remarkably sensible, unprejudiced, and well-informed Old Spaniard: he not only encouraged us to make these observations, and assisted us as far as his means went, but even allowed us to survey the harbour and the town. Under his sanction, therefore, we commenced our operations. It being necessary, in the first instance, to erect a mark in a conspicuous situation, in the

* See Appendix, No. III.

meridian, on which a light was to be placed at night, we fixed upon the parapet of a friend's house, on the further side of the market-place. No particular directions had been given as to the form of this mark, which was nailed up late on Saturday evening ; nor was it until after it had been exposed for some hours next morning, that I discovered it to be in the form of a crucifix. We had learned, by many circumstances, that the inhabitants of San Blas were above all things jealous of any interference with, or any disrespect shown to, their religious customs ; and we had, in consequence, taken great care to avoid every conceivable cause of offence on such subjects. I was horror-struck, therefore, to see the sacred symbol built up as a part of my profane apparatus, and immediately repaired to my friend the commandant, to consult with him what was best to be done on this alarming occasion. " It is a great pity," said he, " and I hope it may not produce a popular commotion ; although I think the chances are, the people will take it rather as a compliment than otherwise : at all events, let it stand now ; and, in the meantime, come down to mass along with me." Accordingly, as the third bell was just then ringing, we set off for the church. On reaching the market-place, we observed a great crowd gaping at my cross ; but we walked on boldly, and I must own I was not a little relieved by the good humour they appeared to be in, and by the unusually civil manner in which they made way for us to pass. They were delighted, in fact, with the circumstance ; and I heard no more of the matter, except that the inhabitants were much pleased with the pious regularity with which we lighted up the cross every night, the moment it was dark. In-

stead of offending them, indeed, it had the effect of inspiring them with hopes of our conversion ; for the question, as to whether or not we were Catholics, was more frequently put than before. They were never displeased with our replying in the negative ; and always considered our regular attendance at mass, and other attentions to their customs, as marks of civility and good-will. They hoped, they said, that in time we would see our error, and yield to the true faith.

An amusing instance occurred one day, that gave us a practical lesson, which we did not fail to turn to account, on the necessity of attending to the prejudices of the populace. An American merchant ship arrived at San Blas with a cargo for sale. Some difficulties at the custom-house prevented her unloading for a few days : in the meanwhile, a few small articles found their way on shore, and, amongst others, several pairs of shoes, which were exposed in the market. These shoes, like many other kinds of American goods, bore the stamp of an eagle on the sole. As the Mexicans, about a month before, had established themselves into an independent Imperial state, of which the Eagle was the emblem, the San Blasians sapiently conceived that the North Americans, in placing an eagle on the sole of their shoes, meant to imply their contempt of the country, by trampling its national insignia under foot ! A vast commotion was raised in the course of a few minutes,—all business was put a stop to,—the shops and houses were shut up, and a riot ensued, such as we had not witnessed before, and had never expected to see amongst a race in general so tranquil.

The Illustrious Ayuntamiento were speedily as-

sembled, and, after much grave discussion, a despatch was written to the commandant on this important subject. However ridiculous he must, of course, have considered the whole affair, he could not appease the ferment, without directing a commission to examine the American ship, and to inquire into and report upon the matter. The commissioners, accordingly, went on board in great state. When they commenced their survey, they were thunderstruck with the multitude of eagles that everywhere met their eyes: on the guns—on the sails—on the sailors' jackets—on everything, in short, was stamped an eagle; and they returned to the shore half distracted with the sight of the imperial bird. The populace were eventually pacified, and order gradually restored; but the original impression left by the shoes was never totally removed, and the crew of the ship were ever afterwards viewed with jealousy and distrust.

This is national or political bigotry; but it is of the same family as religious, or rather superstitious bigotry, which is carried to a greater extent in that part of the world than I have seen anywhere else. I became well acquainted with a priest at San Blas, a rational man on some points, but who often entertained me with relations of the numerous miracles which he himself had actually witnessed, and therefore, as he repeatedly told me, he, of course, most sincerely believed. He was a man of great influence amongst the inhabitants of the town, who gave implicit credit to every one of these stories; and it was really a melancholy sight to see the old man leading his whole congregation along with him in the wildest absurdities, to most of which he bore personal testimony from the pulpit. He was a deep

speculator also in the mines, and being very credulous on every subject, was easily led astray, and pillaged by profligate agents, who wrought upon his mind by absurd prognostics of approaching riches. He had long wearied out the patience of all his friends, by his prosing ; and I observed, that he no sooner commenced the subject, by the slightest allusion to a mine, than his audience immediately moved off : he was, therefore, enchanted to have a new and ready listener. He showed me the plans and sections of his mines, and the letters of his agents, by which, though unacquainted with the subject, I saw at a single glance that he was their dupe : but it would have been an ungracious, and, I suspect, a vain attempt, to have tried to make him sensible of this. He possessed considerable knowledge of the habits of the lower classes ; and, as I found much pleasure in his conversation on this account, I was frequently in his house. The intimacy which sprung up between us, I have no doubt, contributed essentially to the quiet which we enjoyed at San Blas ; and I encouraged it more than I might otherwise have done, from a conviction, that if we had got into any scrape, no one could have extricated us so well as this good father. There was something, also, very primitive in his credulity ; a sort of childish and amiable simplicity, which rendered it impossible to listen without compassion to his wild stories of the miracles he had actually seen performed before his eyes, chiefly by Nuestra Senora de Talpa, his favourite saint. He was but too fair a subject for the mining charlatans, who abound in all those countries, and I greatly fear my reverend friend was on the high road to total ruin.

I have spoken of the heat of San Blas ; but the

period I described was considered the fine season, which lasts from December to May inclusive. During that interval, the sky is always clear ; no rain falls ; land and sea-breezes prevail ; and, as there is then no sickness, the town is crowded with inhabitants. From June to November, a very different order of things takes place. The heat is greatly increased ; the sky becomes overcast ; the sea and land-breezes no longer blow : but in their stead, hard storms sweep along the coast, and excessive rains deluge the country ; with occasional violent squalls of wind, accompanied by thunder and lightning. During this period, San Blas is rendered uninhabitable, in consequence of the sickness, and of the violence of the rain ; which not only drenches the whole town, but, by flooding the surrounding country, renders the rock on which the town is built, literally an island. The whole rainy season indeed is sickly, but more especially so towards the end, when the rains become less violent and less frequent ; while the intense heat acts with mischievous effect on the saturated soil, and raises an atmosphere of malaria, such as the most seasoned native cannot breathe with impunity.

This being invariably the state of the climate, nearly all the inhabitants abandon the town as soon as the rainy season approaches. As we had often heard this migration described, we waited, with some curiosity, for the arrival of the appointed time : and, accordingly, towards the end of May, had the satisfaction of seeing the great flight commence. I shall never forget the singular nature of the scene which was presented to us. All the world began to move nearly at the same time ; the rich and the poor streamed off indiscriminately together. The high road to Tepic was covered with horses,

loaded mules, and foot-passengers, winding along the plain on their way to the interior. On passing through the streets, we saw people everywhere fastening up their windows, locking their doors, and marching off with the keys ; leaving the greater part of their property behind them, unguarded by anything but the pestilence of the climate. The better classes rode away on horseback, leaving their baggage to follow on mules ; but the finances of the greater part of the inhabitants did not admit of this ; and we saw many interesting family groups, where the very aged and the very young people were huddled on mules, already loaded with goods and with furniture ; while the men and the women, and the stouter children, walked by their sides—a scene from which a painter might have collected innumerable subjects of interest.

A city without people is, at any time, a strange and anomalous circumstance ; but it seemed peculiarly so to us, by our friends leaving us day by day, till at length we found ourselves comparatively alone in the deserted town. The governor and his family, and one or two other officers of government, with a few shopkeepers, remained till our departure ; but, with these exceptions, the inhabitants had nearly all gone before we sailed. There are, it is true, always a few people, who, for high pay, agree to watch valuable property ; and some families so miserably destitute, that they absolutely have not the means of removing. The population of the town, in the fine season, is about three thousand ; but the number which remains to brave the climate seldom exceeds a hundred and fifty.

The last family of my acquaintance, except that of the governor, and almost the last of the town, went off on the 31st of May. I have seldom before

taken leave of my friends abroad, without having some hopes of seeing them again ; but the chances of my ever returning to so remote and unfrequented a spot as San Blas, or of ever meeting or hearing of these friends again, were so small, that I felt, on losing sight of them this morning, as if they had actually sunk into the grave. The family consisted of a gentleman, his wife, and his wife's sister, with two elderly female relations. The sister was a very pretty young woman of fifteen ; an age, in those countries, corresponding to seventeen, or upwards, in England. She was very dark, and strongly characterized by the Mexican features ; elegant in her manners, simple and unaffected in her behaviour ; and though much beyond all the people about her, both in knowledge and judgment, no one seemed to have been aware of it, till the attention of the strangers attracted the notice of everybody to her merits. Truth, however, bids me add, that this young lady could neither read nor write, and had probably never heard a book read out of church ; but there was nothing uncommon in this. The mistress of the house was a lively, conversible, handsome person ; very hospitable and kind, especially to the strangers ; and she often made up little parties in the evening, where the company sat in the street, before her door, till a late hour ; smoking, chatting, and flapping away the mosquitoes, and watching anxiously for the first puff of the land-wind. The master of the house, who was in office, had it sometimes in his power to be useful to us. In this way I became intimate with the family, and although there be very little to describe about them, I insensibly felt interested in the whole party, and saw them go away this morning with considerable regret.

The ladies were in their riding-dresses, which consisted of a yellow-coloured beaver hat, with a brim so broad as to serve the purpose of an umbrella ; but with a low crown, scarcely two inches and a half high ; tied round with a richly-wrought ribbon, between which and the hat was stuck a tri-coloured cockade, the emblem of the guarantee mentioned in the account of the Revolution. The hat served to confine a handkerchief, doubled corner-wise, and placed previously over the head ; in such a way, that the two corners, which were laid together, hung half way down the back, while the other corners fell one on each shoulder. The handkerchief was of white muslin, with a scarlet border, four inches broad. Over the shoulders was thrown the Mangas, or cloak, which has a hole in the middle to receive the head. That which was worn by the youngest of the ladies was a deep purple cloth, ornamented round the neck with tasteful gold embroidery, eight or ten inches wide. Below the Mangas, there peeped out a cotton gown of English manufacture, and a pair of untanned yellow boots, made on the spot. On the table lay two pairs of French gloves, but the ladies, not being used to wear such things, soon tore both of them to pieces, in vain attempts to get them on ; upon which they called out to the gentlemen to assist them in winding handkerchiefs round their hands, to defend them, as they said, from the chafing of the hard hide-bridles.

It is the frigid custom all over South America, for the ladies, however well acquainted, not to shake hands with gentlemen. As, however, I had been unusually intimate with this family, I was rather curious to see whether an exception might not for

once be made ; and stood in waiting, by the side of the door, to see them off. First, the master of the house mounted his horse ; then his wife's mother ; next, a venerable aunt. The most courteous and formal Adioses were interchanged between us. The lady herself now stepped out, and, to my surprise, held out both her hands, and took her leave with a carino, as they call it, far beyond my expectation. The little girl was last ; and, having such an example before her, took upon her to forget the formalities of her country, and, with a frank sincerity, came up and offered me her hand.

On the 1st of June 1822, the day broke with an unwonted gloom, overshadowing everything ; a dense black haze rested, like a high wall, round the horizon ; while the upper sky, so long without a single speck, was stained all over with patches of shapeless clouds, flying in different directions. The sun rose, attended by vapours and clouds, which soon concealed him from our sight. The sea-wind, which usually began gently, and then gradually increased to a pleasant breeze, now came on suddenly, and blew with great violence ; so that the waves curled and broke in a white sheet of foam, extending as far as the eye could reach. The whole sea looked bleak and stormy, under the portentous influence of an immense mass of dark clouds, rising slowly in the western quarter, till they reached nearly to the zenith, where they continued suspended like a mantle during the whole day. The ships which, for months before, had lain motionless on the smooth surface of the bay, were now rolling and pitching, with their cables stretched out to sea-ward ; while the boats that used to skim along from the shore to the vessels at anchor, were seen splashing through the waves under a reefed sail, or struggling hard

with their oars to avoid being driven into the surf, which was breaking and roaring furiously along the coast. The flags, that were wont to lie idly asleep for weeks together, by the sides of the masts on the batteries, now stood stiffly out in the storm. Innumerable sea-birds continued during all the day, wheeling and screaming round the rock on which the town stood, as if in terror at this sudden change. The dust of six months' hot weather, raised into high pyramids, was forced by furious gusts of wind into the innermost corners of the houses. Long before sunset, it seemed as if the day had closed, owing to the darkness caused by the dust in the air, and to the sky being overcast in every part by unbroken masses of watery clouds.

Presently lightning was observed amongst the hills; followed shortly afterwards by a storm, exceeding in violence any which I had ever met with before in other parts of the world. During eight hours, deluges of rain never ceased pouring down for a moment; the steep streets of the town soon became the channels of streams of such magnitude, as to sweep away large stones; rendering it everywhere dangerous, and in some places quite impossible to pass. The rain found its way through the roofs, and drenched every part of the houses; the deep rumbling noise of the torrents in the streets was never interrupted; the deafening loudness of the thunder became exceedingly distracting; while flashes of forked lightning, playing in the most brilliant manner, without ceasing, from the zenith to the horizon, on all sides, and clinging, as it were, to the rock, were very beautiful, and sometimes not a little terrific. I never before witnessed such a night.

As the next day broke, the rain and its accom-

paniments ceased. During all the morning, there was a dead calm, with the air so sultry, that it was painful to breathe in it. Though the sky remained overcast, the sun had power to raise up from the drenched ground clouds of dense steam, which covered the whole plain, as far as the base of the mountains.

No very violent rain fell after this furious burst, till the evening of the 4th of June, when the periodical wet season set in. During the intermediate mornings, it was generally clear and fair; but about half past three or four, on each of these days, the sky became suddenly overcast, and at five o'clock the rain began; though it was seldom before eight o'clock that it fell in the torrents I have described, or that the thunder and lightning commenced with great violence.

After such warning as we had received on the first of the month, we were glad to imitate the example of the inhabitants, and take our departure as soon as possible. Accordingly, on the 15th of June, all our business being concluded, we sailed from San Blas; and, after a voyage round Cape Horn, of nearly eight thousand miles, anchored in Rio de Janeiro on the 12th of September 1822; having been at sea three months without seeing land.

APPENDIX.

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No. I.

MEMOIR
ON
THE NAVIGATION
OF THE
SOUTH AMERICAN STATION.

So little has been published respecting the navigation of South America, and especially of that part which lies beyond Cape Horn, that ships first going to that station are often at a loss to discover, which is the best mode of making the different passages from place to place.

Having experienced this difficulty myself on many occasions, and having lost much time in guessing my way in the dark, I endeavoured to collect as much information on the subject as possible, with the view to the formation of some general sailing directions for the whole of those coasts. But, upon revising the materials in my possession, I find they are very far from being sufficiently copious and exact for such a purpose. My time and attention, indeed, were so much occupied by matters in no respect favourable to such inquiries, that

I was often under the mortifying necessity of letting occasions pass, when, if I could have devoted sufficient leisure to the subject, much useful information might have been collected. I do not think it right, however, on this account, to abandon altogether the intention I had first formed. Our opportunities, in fact, were so very extensive, that I think a simple description of each passage, together with such collateral remarks as circumstances suggested, cannot be otherwise than useful to future navigators similarly circumstanced with ourselves. And there can be no doubt, that if every one who has equal means, will, in like manner, record and bring forward merely his own information, we shall soon possess all the knowledge we can desire upon the subject.

Officers are too apt to undervalue the nautical knowledge which they acquire in the ordinary course of service; and to forget, that every piece of correct information which they obtain, especially on distant stations, is essentially valuable. If it be new, it is a clear gain to the stock already accumulated; if not, it is still useful as a corroboration: and this costs very little trouble, for a few practical observations, made during, or at the end of a voyage, give immense additional value to the dry details of a log-book.

I have arranged the accounts of the different passages in the order in which they occurred, and have confined myself strictly to the nautical details.

A list of the latitudes and longitudes of the different places visited by the *Conway* is given at the end of these notices. It has been extracted from a Hydrographical Memoir drawn up by Mr Henry

Foster, master's mate of the Conway, and transmitted by me to the Admiralty. That Memoir contains minute directions for every port which we entered, together with a detailed Account of all the Nautical, Hydrographical, and Astronomical Observations, during the Voyages which we made along the vast range of coast washed by the Pacific. It would have given me much satisfaction to have printed this work of Mr Foster's, had its nature not been exclusively professional. But I take this public opportunity of bearing the strongest testimony to the merits of this rising young officer, to whose assistance and companionship, in every pursuit connected with nautical science, I stand essentially indebted.

It is with real satisfaction, therefore, on public as well as private grounds, that I mention his promotion to the rank of Lieutenant, his admission into the Royal Society, and his appointment as Astronomer and Assistant Surveyor to the North-Western Expedition which sailed in the spring of 1824, and returned in October 1825.

The chart published in the former editions of this work, was drawn up under my directions, and from Mr Foster's observations, by Lieutenant A. B. Becher of the Conway, from whose practical skill in hydrography, as well as other branches of his profession, I derived much valuable assistance.

I owe my acknowledgments also to Lieutenant Charles Drinkwater, the midshipman of H. M. S. Creole, for his assistance in our endeavours to bring the higher branches of nautical astronomy into practical use. His zeal, his talents, and his intimate knowledge of the subject in all its stages, rendered

his simultaneous co-operation, in another ship, at stations distant from ours, of the highest utility.

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No. I.

From Rio de Janeiro to Buenos Ayres.
P. M. 14th of October to A. M. 23d, 1820.
(8½ Days.)

THIS passage was made in less time than it usually occupies. We passed the Sugar Loaf at the entrance of Rio about four o'clock in the afternoon of Saturday the 14th of October 1820, and were off Maldonado, at the entrance of the river Plate, at the same hour on that day week, viz. the 21st, and anchored off Buenos Ayres at four in the morning of Monday the 23d; thus completing seven days from Rio to the river Plate; and eight and a half from Rio to Buenos Ayres.

The wind was moderate, from E.S.E. as far as latitude $26^{\circ} 46'$ South, when it drew to N.E., and blew fresh; it then hauled gradually to the northward. In 33° it fell light, and drew to the westward, south, and so round to the eastward. On approaching the river it came to the southward again; after entering which, the wind came from the S.E., and afterwards N.E. and East, moderate, and fine weather.

An American frigate, which sailed from Rio a fortnight before us, met with hard S.W. breezes, and arrived only two days before us.

Two years afterwards we were off the river Plate, between the latitudes of 40° and 30° for thirteen days, contending against Northerly, and N.N. Westerly winds, between longitudes 40° and 50° . This was in the latter end of August and beginning of

September 1822 ; and it may be useful to remark, that, on this occasion, the winds invariably followed the course of the sun, that is, from right to left, or what is technically called, in the northern hemisphere, against the sun. This change occurred three different times ; the wind drawing from N.E. to North, then to N.W. and West, and so to S.W., and again by S.E. to N.E. and North. Upon two occasions it shifted to S.W. from the northward, without any warning, and blew fresh.

No. II.

*From Monte Video to Valparaiso,
11th of November to 19th of December 1820.
(38 Days.)*

THIS passage was favourable both as to the weather we met with, and as to the time it occupied. With the exception of a gale from South, on the 18th of November, in latitude $46\frac{1}{2}^{\circ}$ South, longitude 57° West, and another short one from West on the 12th of December, after rounding the Cape, in latitude 51° South, longitude 82° West, the weather was uniformly moderate. At starting, we had the winds from the W.S.W., S.W., and West, with one spurt of twelve hours from north by west, in $41\frac{1}{2}^{\circ}$ south, as far as 45° South. It then fell calm, and the wind afterwards sprung up from N.N.E., drew to N.W., and blew hard. After which, it again fell calm for an hour, then a breeze sprung up from the southward. This, in the course of a few hours, freshened to a hard gale, which lasted about fourteen hours. A calm succeeded, and then a fresh N.E. by north,

and easterly wind with rain and squalls as far as the latitude of $50\frac{1}{2}^{\circ}$ South, when it hauled to the S. Eastward, and in $51\frac{1}{2}^{\circ}$ South it fell calm. This was succeeded by a strong westerly, and then north-westerly breeze, with fine clear weather. This carried us to 54° South, when we got N.N.E. and North by West winds, which took us through the Straits of Le Maire.

We rounded Cape Horn on the 26th of November, fifteen days from the river, with a fresh N.N. Westerly breeze. This speedily shifted to the N. W., and then S.W., and again to west, and W.S. W.; so that we made little westing till we reached $61\frac{1}{2}^{\circ}$ South on the 1st of December. The weather was always moderate, with drizzling rain, and occasional fogs, and a high swell from S.W. Between the 2d and 3d of December the wind drew to the northward, with a thick fog. Next day it came to the S.W., with sleet squalls, and a thick haze. This wind gradually hauled to the northward of West, with hail squalls. An inspection of the track will show how uniformly the winds between 60° and $51\frac{1}{2}^{\circ}$ South gradually drew from the S.W. to westward, then to N.W., and so to the northward, and always squally, with hail and sleet. In $51\frac{1}{2}^{\circ}$ South we had a gale of nine hours from the West, with squalls of hail. This wind, however, instead of drawing to the N.W. and northward, as it had been wont to do in the six preceding degrees South of us, now hauled W.S.W., and blew fresh, with constant squalls, till we had run on a North by West course (by compass) nearly to 42° South. The wind then, after a short calm, came to the eastward, and drew round gradually to S.S.E., where it remained steady and fresh till we made

the land to the southward of Valparaiso on the 19th of December. We had light airs from the northward in the middle of the day, which carried us into the harbour.

The highest South latitude to which we reached was $61\frac{1}{2}^{\circ}$, being then in 75° West longitude. This was in the evening of the 1st of December 1820. We had then a fresh breeze from the N.W. by West, with a thick drizzling haze. The barometer stood at 29,34, and the thermometer at 41° . The farthest west to which we went was $84\frac{1}{4}^{\circ}$, in latitude $57^{\circ} 45'$ South, on the 7th of December, the wind very light from the westward, barometer 28,66.

When the prevalence of strong N. W. winds between 50° and 54° South is taken into consideration, it will probably be advisable to go, at least, as far west as 84° , in order to make a fair wind of the north-westers, when not too strong, to admit of carrying sail.

From the best information respecting the weather off the Cape, there seems reason to believe, that the hardest gales prevail near the land, and that the chance of good weather, and of easterly winds, is, at least, as great at a considerable distance off shore. A ship, on meeting westerly winds, therefore, ought perhaps to stand on to the southward as far as 62° or 63° , and be indifferent about nothing, till between the longitude of 80° and 85° , after which there will be little difficulty in proceeding, although there must always be considerable discomfort in passing between 55° and 50° south, where the north-westers prevail, with a high sea.

I am at a loss what to think of the utility of the

barometer on this passage. Off Cape Horn, on the 26th of November, in latitude $56\frac{1}{2}^{\circ}$ South, it stood at 29,55; on reaching 60° South, it had fallen to 29,13; the wind to the westward, and a thick fog; but no bad weather followed. From the 1st to the 2d, when we were in the latitude 61° South, it ranged between 29,50 and 29,30, with light winds from the north-westward, and drizzling rain. During the next day, when we were running nearly on the parallel of 61° South, the mercury fell from 29,30 to 28,84, with a thick fog, and a moderately fresh breeze from the North-west. On the wind coming from the South-westward, it rose slowly to 29,95; the weather moderate, with slight hail squalls and clear weather. It again fell, as the wind shifted to the northward, N.E. and E.N.E., and stood at length at 28,60, which is the lowest point it reached. This was on the evening of the 4th, in latitude 59° south, and longitude nearly 80° west, the wind at E.N.E., moderate and cloudy weather. Fresh southerly, south-westerly, and west-south-westerly breezes followed, and hard squalls, with sleet, but no gale of wind. It remained below 29 inches till we had passed the latitude of 57° south, and afterwards rose very gradually, till, having reached the latitude of 56° south, on the 16th of December, it stood at 30 inches. It gave no warning of the approach of the gale on the 11th, but fell, during its continuance, nearly to 29 inches from 29,28, which it had stood at before.

From a consideration of these circumstances, it is to be apprehended, that the barometer, which in middle latitudes is so useful an instrument in foretelling changes of weather, may sometimes fail us in very high, as it almost always does in very

low latitudes. On the return passage round Cape Horn, on the 15th of August 1822, during the opposite season, the same thing was observed, viz. a fall so low as 28,88, in latitude $56\frac{1}{2}^{\circ}$ South, which was not followed by any bad weather. The wind was then N.W., and moderate. Perhaps it is affected, in high latitudes, by fogs and rains, in a greater degree than it is in middle latitudes, where I have not observed that anything but winds materially influenced its movements.

On the passage from the East, in the summer of that hemisphere, (December,) the lowest temperature we observed off Cape Horn was 39° . On the return passage, in winter, (August,) it never fell below 40° , till off the Falkland Islands, when it was one day as low as 35° .

We observed no current off the Cape greater than what might be ascribed to error in the estimation; neither have I yet heard any well-established facts respecting the currents off Cape Horn, more than what must always attend hard gales.

A considerable difference of opinion prevails as to the fittest time of the year for making a passage round Cape Horn from the eastward. There seems good reason to believe, that in winter, when the sun is to the northward of the equator, the chance of easterly winds is the greatest; and many persons are of opinion, that the westerly gales are then neither so violent nor so lasting as during the months that the sun is to the southward of the equator. Admitting these circumstances to be as stated, there remain two very serious objections to the winter season; first, the length of the nights; and, secondly, the presence of ice islands. In a tempestuous and frigid latitude, the absence of day-light always

augments, in a very serious degree, the difficulties of navigation ; but when the formidable danger of icebergs is added, there can be little farther question, I think, as to which season is preferable. All accounts seem to agree, that it is during the winter and spring months, July, August, and September, that the ice is most generally met with ; and, as the masses in which it floats about are sometimes only a few feet above the water, and such as cannot possibly be distinguished at night, the risk which ships run in winter months is very great. Sometimes it is met with in fields, which embarrass ships exceedingly ; and since the opening of the commerce with the shores of the Pacific, has multiplied the number of vessels navigating those seas, many accidents occur every season. It will be seen under the head of Notice XV., that we met the ice both in large and small islands in August 1822 ; and several ships returned to Rio about the same time, after running against the ice, dismasting themselves, and sustaining other damage.

I have lately been informed, by persons well acquainted with the opinions of the whale-fishers on this subject, that they prefer rounding Cape Horn in the winter months, during which season less ice is said to be found than in summer, and there is a greater chance of easterly winds. I am disposed to pay great deference to the opinion of men so familiar with the navigation in question ; but, after giving it all the consideration in my power, I confess I am still disposed to prefer the light to the dark season ; especially since I know by experience, that even in the dark, or winter season, icebergs do make their appearance.

No. III.

From Valparaiso to Lima.

27th of January, to 5th of February, 1821.

(9 Days.)

THE wind on this passage is always nearly the same, viz. S.S.E. It sometimes hauls a point or two to the eastward, but the passage is always certain. The only precaution to be attended to is, to run well off the land in the first instance, say 150 miles, on a N.W. course, and then steer direct for San Lorenzo, a high and well-defined island, forming the eastern side of Callao Bay. It is usual to make the land of Morro Solar, which lies ten miles to the southward of Callao, and then run into the roads by the Boqueron Passage, or proceed round the north end of San Lorenzo. By attending closely to the directions on Mr Foster's chart, transmitted to the Admiralty, any vessel may safely enter the Boqueron; but great attention must be paid to the lead and the bearings, and an anchor kept ready to let go.

It is generally calm in Callao Roads during the morning, and sometimes foggy; but, about eleven o'clock, it clears up, and the breeze freshens from the southward, which enables ships to reach the anchorage generally without a tack, after rounding the north end of Lorenzo; so that, upon the whole, this outer route, which is entirely free from danger, is preferable to the other, at least for a stranger.

No. IV.

*Lima to Valparaiso.**28th of February to 18th of March 1821.**(18 Days.)*

THE return passage from Peru to Chili requires some attention, and may generally be made by a man-of-war in less than three weeks; it has been made in less than a fortnight by a frigate, which, however, on the next occasion, took twenty-eight days. The point which contributes most to the success of this passage is keeping well off the wind after leaving Lima, and not having any scruples about making westing, provided southing can also be gained. The S.E. trade-wind, through which the greater part of this course is to be made, invariably draws to the eastward at its southern limit, and, therefore, a ship eventually can always make her southing. The object, however, being to get past the trade and into the westerly winds, which lie to the southward, a ship ought to keep the wind, at least a beam, while crossing the trade. In winter, that is, when the sun is to the northward of the equator, the trade-wind blows steadier, and its southern extreme lies four or five degrees to the northward of its summer limit, which may be taken at about 30° or 31° South.

The sun was near the equator when this passage was made, and we retained the trade-wind as far as 31° South, after which we had Northerly and North-westerly winds as far as the Island of Masafuera, when it shifted to South, and then to S.E. by

S., blowing fresh. This changed to S.S.E., the regular coast-wind, as we drew in-shore. During summer, the land ought always to be made to the southward of the port. In winter, when hard North winds are frequent, this is not advisable. Perhaps, at such seasons, a direct course for Valparaiso may be the best, after losing the trade-wind.

No. V.

*Valparaiso to Lima, by the Entremedios, or
Intermediate Ports.*

27th of May to 24th of June 1821.

FROM Valparaiso we steered at the distance of about sixty miles from the coast, as far as lat. $22\frac{1}{2}^{\circ}$ South; when we hauled in, and afterwards coasted along in sight of the shore, at the distance of seven or eight leagues, as far as Arica. The winds being light from S.S.E., it was not till the 7th of June that we anchored there. From thence we coasted along by Quiaca, Morra de Sama, and Ilo, to Mollendo, the winds being generally from the eastward, and drawing off shore at night; calm in the mornings; and hauling in from the sea in the day; the weather invariably fine. From Mollendo to Lima we had a fresh breeze off shore about S.E. On approaching the Morro Solar, the wind fell light, and we were obliged to tow the ship through the Boqueron Passage into Callao Roads.

There is no difficulty in making a passage along the south coast of Peru from the eastward. But from the westward a great deal of vigilance is requisite to take advantage of every occasional shift

of wind, since by this means alone can a passage be made. The best authorities are, I think, against standing out to sea to the south-westward, in the hopes of fetching in upon the starboard tack. The *Constellation*, American frigate, tried this passage, but she thereby lost a great deal of time, being at least three weeks in going from Lima to Mollendo.

The *San Martin*, bearing Lord Cochrane's flag, made the passage to Arica, which is considerably further, in thirteen days, by keeping in-shore, and taking advantage of the changes which take place, with more or less regularity, every evening and morning.

As the weather along the south coast of Peru is invariably fine, ships are not otherwise incommoded at the various anchorages, than by a high swell, which always rolls in at the full and change of the moon. Arica is the only place having any pretensions to the name of a harbour; but the several bays described in Mr Foster's Memoir may be considered safe, provided the ground-tackling be good.

No. VI.

Chorillos (near Lima) to Valparaiso.

10th to 28th of August 1821.

(18 Days.)

THIS being what is called the winter passage, we lost the trade-wind in latitude 25° South, after which we had the winds to the S.W. as far as longitude 88° West, and latitude 27° South, when it shifted to the N.W. and West, and so to the S.W. and South, as far as 78° west longitude, and lati-

tude 33° South. We were much embarrassed by calms, light winds, and heavy rains, after which the wind came to the northward and N.N.W., with thick rainy weather. We made the land to the southward of Valparaiso on the 27th, and got in next day by the wind coming round to the S.W.

At this season of the year, when northerly winds prevail, with heavy rain, and unpleasant weather, it does not seem advisable to make the coast to the southward of the port. Neither ought a ship, I think, to run into Valparaiso in one of these gales, since the wind frequently blows home, and is attended by a high swell. During the winter, the best ground-tackle ought to be laid out to the northward, and a birth taken sufficiently far from the shore to allow of veering, in the event of bad weather coming on. It does not seem necessary to take more than barely room for this purpose, since, by lying near the shore, there will be always an undertow, which relieves the sea-cable of great part of the strain. Before the gale comes on, the barometer, the threatening aspect of the weather, and the rising swell, generally gave sufficient warning. Previous to a Norther, as these gales are called, the land of Concon, and that beyond it to the northward, are seen with unusual sharpness and distinctness.

This passage in eighteen days may be termed short. Formerly thirty days was usual, it afterwards sunk to twenty-five days, and, at the period of our arrival, three weeks was considered good. Sir Thomas Hardy, in his Majesty's ship *Creole*, made the passage from Huacho in something less than fourteen days, the distance being more than two thousand two hundred miles. This was early

in May 1821, and it is well worth attending to, that the trade-wind was crossed with a fore-top-mast studding-sail set, no regard being paid to any object, but getting through the trade-wind as fast as possible. The same ship, however, in February and March of the following year, was twenty-eight days making the passage, but this is unusually long for a man-of-war.

No. VII.

*Valparaiso to Conception, Bay of Arauco, and
Island of Mocha.
1st to 21st of October 1821.*

As the prevalent winds along this coast are from the southward, it is necessary to take advantage of every slant that will allow of southing being made, and we were fortunate in meeting with a westerly wind on the third day after sailing, which carried us more than half the distance. The wind subsequently was South by W., which made the rest of the passage to Conception almost a dead beat. We arrived at Talcahuana, in Conception Bay, on the 8th. During the 9th, it blew fresh from the northward. We afterwards beat up to the Bay of Arauco, and to the Island of Mocha, in $38^{\circ} 19'$ South, having on this occasion been favoured with a southeasterly breeze, and then a southerly one to stand in with.

We endeavoured to reach Valdivia also, but the wind came from South by East, and blew so hard that we were obliged, for want of time, to give it up. On the return passage to Valparaiso, we had

light north-westerly and west winds, then S.W., and so to the southward, and South by East, which is the most common wind.

These particulars would seem to point out that a passage may always be made to the southward; for the winds are seldom steady for twelve hours, and by taking care to profit by every change, southing must be made.

The passage from Valparaiso to Conception is generally made in ten days, which is also the usual time required for a passage to Lima; the distance, however, in the first case, is two hundred and twenty miles, and in the latter, thirteen hundred and twenty, a circumstance which points out very decidedly the direction of the prevalent winds.

No. VIII.

Valparaiso to Lima, calling at Coquimbo, Guasco, Copiapo, Arica, and Mollendo.

15th of November to 9th of December 1821.

(24 Days.)

THE winds during these passages along-shore are always light, and from the southward, hauling in from sea during the day, and freshening from off the land in the night.

Between Mollendo and Callao there is a pretty steady breeze from E. S. E., with a drain of current along-shore; a remark which applies to the whole coast from Valparaiso to Lima.

A remarkable increase of the great S. W. or ocean swell is observable at the full and change of the moon on these coasts, especially from Arica to

Huacho inclusive, a circumstance which renders it difficult, and sometimes impossible, to land at those places.

No. IX.

*Lima to Pacasmayas, Payta, and Guayaquil.
17th to 25th of December 1821.*

THE winds between Lima and Guayaquil are moderate from the southward; at night hauling to the south-eastward, and in the day from S.S.W.

When we came off the entrance of the river of Guayaquil, on the 23d of December, the wind met us from N.W., and then fell calm. We were obliged to anchor on the ebb, and to beat up against the light northerly and northwesterly winds as far as the anchorage off the N.E. end of Puna. In the afternoon of the 24th, we received a pilot from the town of Puna, who undertook to carry us up during the night. We accordingly weighed at four o'clock, and with the flood tide and a light breeze from west by south, ran up in the dark, and anchored at four in the morning of the 25th off the town of Guayaquil. The pilots of this river are expert, and appear to understand their business well; but it is quite indispensable that their wishes be promptly and exactly attended to, as the passages are so narrow, and the tide so rapid, as to admit of no delay. Several ships have been run aground, by the captain hesitating to let go the anchor at the desire of the pilot.

The passage down again was more difficult, in consequence of the prevalent winds being up the

river. It afforded us, however, a means of becoming acquainted to a certain extent, with the pilotage ; and I feel assured that Mr Foster's directions, transmitted to the Admiralty, taken along with the chart usually supplied, and used with extreme caution, would prove sufficient, in time of war for instance, or when there might be some urgent necessity for a ship's going up without a pilot. In the narrow parts of the river we kedged down with the ebb, without any sail set, but having a bower anchor on the ground, and the cable at short stay peak ;* in this way the ship was readily steered from side to side, or brought up at an instant's warning. At other places we backed and filled, and at some made shore tacks. We were always obliged, however, to anchor when the flood tide made.

This is the period at which the rains are expected to set in, and the heavy threatening aspect of clouds over the hills, gave us reason to expect that we should not escape ; but none fell during our stay, between the 23d and the 30th of December.

The passage from Guayaquil back to Lima requires attention, as may be seen from the following directions, which I obtained from Don Manuel Luzurragui, captain of the port of Guayaquil.

“ The average passage, in a well-found, and well-managed ship, is twenty days ; eighteen is not uncommon ; and there is an instance of a schooner doing it in twelve. From the entrance of the river as far as Punta de Aguja, (in latitude 6° south,) the shore must be hugged as close as possible, in order to take advantage of the changes of wind, which take place only near the shore. In this way,

* See an account of this operation at page 104, vol. III.

by due vigilance, slants may be made every day and night. On reaching Punta de Aguja, work to the southward, as nearly on the meridian of that point as may be, as far as $11\frac{1}{2}^{\circ}$ latitude, and then strike in-shore for Callao, and if it is not fetched, creep along-shore, as formerly directed."

Persons accustomed to the navigation between Lima and Valparaiso are tempted to stand boldly out, in hopes of making their southing with ease, and then running in upon a parallel. But this is not found to be practicable; and, indeed, the cases have no resemblance, since the passage to Valparaiso is made by passing quite through the trade-wind, and getting into the variables; whereas Lima lies in the heart of the trade; accordingly, a ship that stretches off from Guayaquil comes gradually up as she stands out, and finally makes about a south course; when she tacks again, the wind shifts as she draws in, and the ship will be fortunate if she can retrace her first course; very often, indeed, she does not fetch the point left in the first instance.

To work along-shore with effect, the land must be kept well on board, and constant vigilance be bestowed upon the navigation, otherwise a ship will make little progress.

No. X.

Guayaquil to the Galapagos.

30th of December 1821, to 5th of January 1822.

(6 Days.)

As the winds between the Galapagos and the

main are always from south or S.S.E., there is nothing to be particularly attended to in this passage, except the currents, which generally set to the northward, and increase in strength near the islands. On getting amongst them the greatest care is necessary, to avoid being carried to leeward of the anchorage where it is proposed to stop. In the Conway we were drifted to leeward of James's Island, and could never afterwards regain it. We lay upwards of a week at Abingdon Island, the most northern of the large ones, in a bay at the south end, where we were disagreeably exposed to the S.S.E. winds.

It appeared as if the bad season was about to set in, for several nights we had rain and squalls.

It is to be regretted, that the true geographical position of these islands is still uncertain, and the hydrographical knowledge respecting them so exceedingly scanty. Several of the islands have, it is said, some safe ports, but these are little known, and their resources still less so. We know that an ample supply of terrapins, or land tortoises, may be procured at some of the islands, and water is probably to be found at most of them, if diligent search were made. They offer at all seasons a most valuable asylum to the South-Sea Whalers.

No. XI.

Galapagos to Panama.
16th of January to 2d of February 1822.
(17 Days.)

THIS passage, at all times in the year, is tedious

and uncertain, in consequence of the light baffling winds and calms which belong to the great bight, known under the name of the Bay of Panama; and these winds being also uncertain in direction, the best method seems to be to steer for the port whenever that can be done.

For the two first days of our passage, the 17th and 18th of January, we had a fresh breeze from the southward, after which we were much retarded by calms, light winds, and squalls; and it was not till the 29th that we made the Morro de Puercos, the high land of the promontory forming the western limit of the Bay of Panama. On steering to the eastward, we met a fresh breeze from north immediately on our opening the point. This carried us across the bay in the parallel of 7° north. As we closed with the eastern coast, the wind drew more to the westward, and enabled us to make the land about Point Escondida, in $7^{\circ} 40'$ north. From hence we took advantage of the shifts of wind between the night and the day, and beat up till abreast of the island of Galera, lying between the south end of the Isla del Rey and Point Garachine, forming the south side of the Gulf of San Michael. There, in latitude $8^{\circ} 11'$ north, it was thought prudent to anchor till the morning, as there is a shoal laid down in this neighbourhood, but which, we afterwards learned, has eight fathoms on its shallowest part. Next morning, the 1st, we were employed working against light winds from the northward, with a slight current in our favour: towards sunset the breeze freshened considerably, and when we tacked close to the island of Petado, on the N.E. shore of the bay, the breeze was so fresh that we could hardly carry the top-gallant sails. This breeze

blew from N.N.E. to N.E. by North, enabling us to clear, at a proper distance, the long line of small islands which stretch to the N.N.W. of the Isla del Rey, and thence to proceed, in a straight line, a little to windward of W.N.W. by compass, directly for the anchorage of Panama. But towards the morning of the 2d of February, the wind drew to the N.N.W., and, after the day broke, we had several tacks to make before reaching the anchorage, within the island of Perico.

After entering the bay, we were not much influenced by currents. From what we saw and heard it appeared to be essential, on working into Panama, to keep on the eastern side, where the wind is moderate, the water smooth, and there is no current; whereas, on the western side, the breeze is too strong, there is a short sea, and generally a drain of current setting out to seaward.

No. XII.

General Remarks on the Winds and Weather, and the Navigation of the South-West Coast of Mexico.

ON the south-west coast of Mexico, the fair season, or what is called the summer, though the latitude be north, is from December to May inclusive. During this interval alone it is advisable to navigate the coast, for in the winter, from June to November inclusive, every part of it is liable to hard gales, tornadoes, or heavy squalls, to calms, to constant deluges of rain, and the most dangerous lightning; added to which, almost all parts of the coast are, at this time, so unhealthy, as to be

abandoned by the inhabitants. At the eastern end of this range of coast, about Panama, the winter sets in earlier than at San Blas, which lies at the western end. Rains and sickness are looked for early in March at Panama; but at San Blas, rain seldom falls before the 15th of June; sometimes, however, it begins on the 1st of June, as we experienced. Of the intermediate coast I have no exact information, except that December, January, and February, are fine months everywhere; and that, with respect to the range between Acapulco to Panama, the months of March, April, and half of May, are also fine—at all other times the coast navigation may be generally described as dangerous, and on every account to be avoided.

From December to May inclusive, the prevalent winds between Panama and Cape Blanco de Nicoya are N.W. and northerly. From thence to Realejo and Sonsonate N.E. and easterly. At this season off the Gulfs of Papagayo and Tecoaatepec there blow hard gales, the first being generally N.E., and the latter north. These, if not too strong, as they sometimes are, greatly accelerate the passages to the westward—they last for several days together, with a clear sky overhead, and a dense red haze near the horizon. We experienced both in the Conway in February 1822. The first, which was off Papagayo on the 12th, carried us two hundred and thirty miles to the W.N.W.; but the gale we met on crossing the Gulf of Tecoaatepec, on the 24th, 25th, and 26th, was so hard that we could show no sail, and were drifted off to the S.S.W. more than a hundred miles. A ship ought to be well prepared on these occasions, for the gale is not only severe, but the sea, which rises quickly, is un-

commonly high and short, so as to strain a ship exceedingly.

From Acapulco to San Blas what are called land and sea-breezes blow ; but as far as my experience goes, during the whole of March they scarcely deserve that name. They are described as blowing from N.W. and West during the day, and from N.E. at night ; whence, it might be inferred, that a shift of wind, amounting to eight points, takes place between the day and night breezes. But, during the whole distance between Acapulco and San Blas, together with about a hundred miles East of Acapulco, which we worked along, hank for hank, we never found, or very rarely, that a greater shift could be reckoned on than four points. With this, however, and the greatest diligence, a daily progress of from thirty to fifty miles may be made.

Such being the general state of the winds on this coast, it is necessary to attend to the following directions for making a passage from the eastward.

On leaving Panama for Realejo or Sonsonate, come out direct to the north-westward of the Isla del Rey—keep from twenty to thirty leagues off the shore as far as Cape Blanco de Nicoya, and on this passage advantage must be taken of every shift of wind to get to the north-westward. From Cape Blanco hug the shore, in order to take advantage of the north-easterly winds which prevail close in. If a Papagayo (as the strong breeze out of that gulf is called) be met with, the passage to Sonsonate becomes very short.

From Sonsonate to Acapulco keep at the distance of twenty, or at most thirty leagues from the

coast. We met with very strong currents running to the eastward at this part of the passage; but whether by keeping farther in or farther out we should have avoided them, I am unable to say. The above direction is that usually held to be the best by the old coasters.

If, when off the Gulf of Tecoa-tepec, any of the hard breezes which go by that name should come off, it is advisable, if sail can be carried, to ease the sheets off, and run well to the westward, without seeking to 'make northing; westing being, at all stages of that passage, by far the most difficult to accomplish. On approaching Acapulco the shore should be got hold of, and the land and sea-breezes turned to account.

This passage in summer is to be made by taking advantage of the difference in direction between the winds in the night and the winds in the day. During some months, the land-winds, it is said, come more off the land than at others, and that the sea-breezes blow more directly on shore; but in March we seldom found a greater difference than four points; and to profit essentially by this small change, constant vigilance and activity are indispensable. The sea-breeze sets in, with very little variation as to time, about noon, or a little before, and blows with more or less strength till the evening. It was usually freshest at two o'clock; gradually fell after four; and died away as the sun went down. The land-breeze was by no means so regular as to its periods or its force. Sometimes it came off in the first watch, but rarely before midnight, and often not till the morning, and was then generally light and uncertain. The principal point to be attended to in this navigation is, to have the

ship so placed at the setting in of the sea-breeze, that she shall be able to make use of the whole of it on the larboard tack, before closing too much with the land. If this be accomplished, which a little experience of the periods renders easy, the ship will be near the shore just as the sea-breeze has ended, and there she will remain in the best situation to profit by the land-wind when it comes; for it not only comes off earlier to a ship near the coast, but is stronger, and may always be taken advantage of to carry the ship off to the sea-breeze station before noon of the next day.*

These are the best directions for navigating on this coast which I have been able to procure: they are drawn from various sources, and, whenever it was possible, modified by personal experience. I am chiefly indebted to Don Manuel Luzurragai, master-attendant of Guayaquil, for the information they contain. In his opinion, were it required to make a passage from Panama to San Blas, without touching at any intermediate port, the best way would be to stretch well out, pass to the southward of Cocos Island, and then run with the southerly winds as far West as 96° before hauling up for San Blas, so as to make a fair wind of the westerly breezes which belong to the coast. An experienced old pilot, however, whom I met at Panama, disapproved of this, and said, the best distance was fifteen or twenty leagues all the way. In the winter months, these passages are very unpleasant, and it is indispensable that the whole navigation be much further off-shore, excepting only

* See Dampier's account of land and sea breezes, quoted in pages 146, 147, vol. III.

between Acapulco and San Blas, when a distance from ten to twelve leagues will be sufficient.

The return passages from the West are always much easier. In the period called here the summer, from December to May, a distance of thirty to fifty leagues ensures a fair wind all the way. In winter, it is advisable to keep still farther off, say a hundred leagues, to avoid the calms and the incessant rains, squalls, and lightnings, which everywhere prevail on the coast at this season. Don Manuel Luzurragui advises, during winter, that all ports on this coast should be made to the southward and eastward, as the currents in this time of the year set from that quarter.

If it be required to return direct from San Blas to Lima, a course must be shaped so as to pass between the Island of Cocos and the Galapagos, and to the south-eastward, till the land be made a little to the southward of the equator, between Cape Lorenzo and Cape St Helena. From thence work along-shore as far as Point Aguja, in latitude 6° South, after which, work due South, on the meridian of that point, as far as $11\frac{1}{2}^{\circ}$ South, and then stretch in-shore. If the outer passage were to be attempted from San Blas, it would be necessary to run to 25° or 30° South across the trade, which would be a needless waste of distance and time.

Such general observations as the foregoing, on a navigation still imperfectly known, are, perhaps, better calculated to be useful to a stranger than detailed accounts of passages made at particular seasons. For although the success of a passage will principally depend on the navigator's own vigilance in watching for exceptions to the common

rules, and on his skill and activity in profiting by them, yet he must always be materially aided by a knowledge of the prevalent winds and weather. As many persons, however, attach a certain degree of value to actual observations made on coasts little frequented, although the period in which they may have been made be limited, I have given, in the two following notices, a brief abstract of the Conway's passages from Panama to Acapulco, and from Acapulco to San Blas. The original notes from whence they are taken are too minute to interest any person not actually proceeding to that quarter of the world.

No. XIII.

Panama to Acapulco.

5th of February to 7th of March 1822.

(30 Days.)

WE sailed from Panama on the 4th of February, and anchored on that afternoon at the island of Taboga, where we filled up our water. Next evening, the 5th, we ran out of the bay with a fresh N.N.W. wind, and at half past two in the morning of the 6th rounded Point Mala, and hauled to the westward. As the day advanced the breeze slackened and drew to the southward. In twenty-four hours, however, we had run one hundred and forty miles, and were entirely clear of the bight of Panama. It cost us nearly six days more before we came abreast of Cape Blanco de Nicoya; at first we had light winds from S.S.W., then a moderate breeze from N.N.W., which backed round to the eastward,

and was followed by a calm ; during each day we had the wind from almost every point of the compass, but light and uncertain. Between the 11th and 12th, we passed Cape Blanco de Nicoya with a fresh breeze from S.S.E. and then S.S.W., which shifted suddenly to the northward, afterwards to the N.N.E., where it blew fresh for upwards of twenty-four hours, and enabled us to run more than two hundred and thirty miles to the west-north-westward in one day. This breeze, which is known by the name of Papagayo, failed us after passing the Gulf of the same name, and we then came within the influence of adverse currents. On reaching the longitude of 92° West, on the 16th we were set S. 16, W. 77 miles ; on the 17th, N. 16 miles ; on the 18th, E. 51 miles ; on the 19th, S. 78° , E. 63 miles ; on the 20th, S. 62° , E. 45 miles ; on the 21st, S. 87° , E. $17\frac{1}{2}$ miles ; all of which we experienced between 91° and 93° West, at the distance of twenty leagues from the shore, meanwhile we had N.N.E. and northerly winds, and calms.

After these currents slackened, we made westing as far as $93\frac{1}{2}^{\circ}$, by help of N.N.E. and Easterly winds. On the 22d, 23d, and 24th, we were struggling against north-westerly winds off Guatemala between 14° and $15\frac{1}{2}^{\circ}$ North latitude. This brought us up to the top of the Bay of Tecoaatepec at sunset of the 24th, we then tacked and stood to the westward. The weather at this time looked threatening ; the sky was clear overhead, but all round the horizon there hung a fiery and portentous haze, and the sun set in great splendour ; presently the breeze freshened, and came to North by West, and before midnight it blew a hard gale of wind from North. This lasted with little intermission till six

in the morning of the 26th, or about thirty hours. There was during all the time an uncommonly high short sea, which made the ship extremely uneasy. The barometer fell from 29.94 to 29.81, between noon and four P.M., but rose again as the gale freshened—the sympiesometer fell twelve hundredths. This gale drove us to the South-west by South about one hundred and forty miles. A fine fresh breeze succeeded from N.N.E., which carried us on one hundred and twenty miles towards Acapulco, and left us in longitude $97\frac{1}{2}^{\circ}$ West, and latitude 15° North, on the 27th. This was the last fair wind we had on the coast, all the rest of our passage, as far as San Blas, being made by dead beating. The distance from Acapulco was now less than one hundred and eighty miles, but it cost us eight days' hard work to reach it, principally owing to a steady drain of lee-current running East by South at the following daily rates, viz. thirteen, sixteen, twenty-seven, thirty-seven, twenty-five, ten, nine, seven, and nine miles. The winds were, meanwhile, from N.W. to N.N.W., with an occasional spurt from South-East and South, and several calms. We had not yet learned the most effectual method of taking advantage of the small variation between the day and night winds.

No XIV.

Acapulco to San Blas.
12th to 28th of March 1822.
(16 Days.)

THIS passage was considered good for the month

of March ; but in the latter days of December, and first of January, an English merchant-ship made it in ten days, having a fair wind off shore nearly all the day. A merchant-brig, which passed Acapulco on the 6th of February, at the distance of 150 miles, was a fortnight in reaching Cape Corrientes, and nearly three weeks afterwards getting from thence to San Blas, a distance of only seventy miles. There is, however, reason to believe that this vessel was badly handled.

It would be useless to give any more detailed account of this passage than will be seen in the preceding remarks, (No. XII.) We generally got the sea-breeze about noon, with which we laid up for a short time W.N.W., and then broke off to N.W.; and so to the northward, towards the end of the breeze, as we approached the coast. We generally stood in within a couple of miles, and sometimes nearer, and sounded in from fifteen to twenty-five fathoms. If the breeze continued after sunset, we made short tacks, in order to preserve our vicinity to the land, to be ready for the night-wind. With this we generally lay off S.W., sometimes W.S.W. and West, but only for a short time. After passing latitude 18° , the coast trended more to the northward, and a much longer leg was made on the larboard-tack, before we were obliged to go about. As we approached Cape Corrientes, in latitude 20° , the land-winds became more northerly, and the sea-breezes more westerly; so that, as the coast also trended off to the northward, a more rapid advance was made.

On passing Cape Corrientes, the Tres Marias Islands came in sight; and if they be passed to the south-eastward, at the distance of eight or ten

leagues, and a N.N.E. course steered, Piedra Blanca de Mar, off San Blas, will be readily got sight of. This is a round, bold, white rock, in latitude $21^{\circ} 34\frac{3}{4}'$ North, and longitude $105^{\circ} 32\frac{1}{6}'$ West, and being one hundred and thirty feet high, forms an excellent land-mark. It lies exactly eleven and three-quarters of a mile nearly due west from the harbour of San Blas, which is pointed out by another white rock, bearing south, 82° East from the former. Close round this last rock, called Piedra de Tierra, on the eastern side, lies the anchorage. The coast between Cape Corrientes and San Blas is full of deep and dangerous rocky bights. It is little known, and ought not to be approached. Care should also be taken, in the night-time, to keep clear of a small cluster of low rocks, which lie twenty-two miles to the N.N.W. of Cape Corrientes. We made them in latitude $20^{\circ} 43'$ North, and longitude $105^{\circ} 51' 4''$ West. Vancouver places them in latitude $20^{\circ} 45'$ North; longitude $105^{\circ} 46' 55''$ West; an agreement sufficiently near. Our difference of longitude was ascertained by chronometers next day from San Blas, where the longitude was afterwards determined by an occultation of a fixed star.

Cape Corrientes lies in latitude $20^{\circ} 24\frac{1}{5}'$ North; longitude $105^{\circ} 42' 26''$ West, or $22' 59''$ West from San Blas.

During our stay at San Blas, from the 28th of March to the 15th of June, we had light land-winds every night, and a moderately fresh breeze from West every day, with the thermometer always above 80° .

Towards the end of the period, the sky, which had been heretofore clear, became overcast; the

weather lost its former serene character, becoming dark and unsettled; and on the 1st of June, the periodical rains set in with great violence, accompanied by thunder and lightning, and fresh winds from due south. This was nearly a fortnight earlier than the average period. The heat and closeness of the weather increased greatly after the rains set in; but although our men were much exposed, no sickness ensued, excepting a few cases of highly inflammatory fever. The town was almost completely deserted when we came away; the inhabitants having, as usual, fled to Tepic, and other inland towns, to avoid the discomfort and sickness which accompany the rains.

As soon as the rains subside, in the latter end of October, or beginning of November, the people return, although that is the period described as being most unhealthy, when the ground is still moist, and the heat of the sun not materially abated

No. XV.

*San Blas, round Cape Horn, to Rio de Janeiro,
15th of June to 12th of September 1822.*

(89 Days.)

THE navigable distance of this passage, or that over which a ship must run, without counting casual deviations, is 7550 miles, and includes every variety of climate and weather.

An inspection of the track in the chart which accompanied this Memoir, will give a better idea of the extent and variety of this passage than any description can do. A few general remarks, how-

ever, may have their use. We were recommended by the oldest navigators at San Blas to get off the coast as fast as possible, in order to avoid the very unpleasant weather which belongs to it at this season. This, it appears, is sometimes difficult to accomplish, and ships are even driven as far as Acapulco, before they can disentangle themselves from the westerly and south-westerly breezes. We, however, found no difficulty in running off to the S.W. as far as 110° W. and 15° North. From $8\frac{1}{2}^{\circ}$ North, to $3\frac{1}{2}^{\circ}$ North, and longitude 105° W., we were much retarded by southerly winds. We then got the trade-wind, which hung far to the south at first, and obliged us to cross the line in $110\frac{1}{4}^{\circ}$ West. We kept the trade-wind for fifteen days, that is, to the 23d of July, at which time we had reached the latitude of 27° South, having run by its means about two thousand miles. The wind afterwards came to the northward, and then to the N.W., whence, in $30\frac{1}{2}^{\circ}$ South, it shifted to South by east, and then to South-west on the 29th of July. In $35\frac{1}{2}^{\circ}$ South, and 102° West, we had a hard gale from the southward.

The wind had been previously so fresh from the S.W. and S.S.W., that we were obliged to close reef at midnight of the 28th of July. It shortly afterwards came on to rain hard, and fell calm for an hour, at the end of which interval a gale suddenly came on from South, and blew with violence all that day. This gale was followed by fresh South-west-by-West winds, which came round to N.W., and then to S.S.W. again, as far as latitude 46° South, and longitude 90° West, when the wind hung for three days from the Southward. From $49\frac{1}{2}^{\circ}$ South, and 82° West, to 55° South, and 78°

West, we had fresh N.N.E., N.N.W., and N.W. winds. Just as we were about to haul up to round the Cape on the 12th of August, the wind came from N.E. (by compass, or about E.N.E. true,) which obliged us to go as far as $57\frac{1}{2}^{\circ}$ South, before the wind shifted to west and north-west. We passed out of sight of Cape Horn on the night of the 14th of August, just two months from San Blas, strictly $60\frac{1}{2}$ days, the navigable distance being six thousand miles. From the meridian of Cape Horn, to that of the Falkland Islands, we retained the N.W. and latterly the S.W. winds. It then fell calm, after which we had S.E. and S.S.E. breezes, with snow showers, (the first we had seen,) nearly as far as latitude 40° South. In the Pacific, between 50° and 55° , we had hard breezes, with rain, and a considerable sea, but not such as to prevent our scudding with ease. During all the passage off the Cape, we had fine weather, with smooth water, and a mild climate, that is to say, the thermometer was not below 39° . Off the Falkland Islands, with an E.S.E. wind, it fell to 35° . This temperature seemed cold to persons recently come from a residence of more than six months in one of the hottest parts of the world, but upon the whole, the season was finer than that of the correspondent north latitude.

When off the Cape in 57° South, and longitude 69° West, we fell in with four ice islands; two of these were very high and long; the other two were about twenty yards long, and as they floated not more than ten or twelve feet out of the water, would, in all probability, not have been seen at night till too near to be avoided. Next day an immense island was seen, which could not have been less

than two or three hundred feet high, and a quarter of a mile long. This was in $56\frac{1}{2}^{\circ}$ South, and longitude 65° West. Some days afterwards, we fell in with an American whaler which had passed more to the southward in 58° , where he not only met with innumerable ice islands, but with an extensive compact field, as far as the eye could reach. He found himself in the morning almost beset, and it cost him nearly twenty-four hours beating among the floating pieces and icebergs, before he was clear of them. I examined his chart, on which his track was laid down with every appearance of exactness; the ice and ice islands were sketched in a business-like manner on the chart. The high island which we saw on the morning of the 15th was probably one of the same group, and the smaller ones fragments.

There are few things more dangerous in navigation than one of these low ice islands, in a dark night, when blowing hard, and with a high sea; all circumstances which unfortunately are likely enough to come together at this particular season, when the ice is most frequently observed to be floating about, off Cape Horn. In bad weather it might be prudent to lie-to. But in fine weather, although dark, as it was with us, a leisurely course may be followed, provided uncommon vigilance be used. On this occasion I thought of a precaution, which it may perhaps be worth while stating. Having reefed the courses, that the officer of the watch might have a free view, the yards were braced sharp up, bowlines hauled, and everything prepared for tacking, and always kept so at night, from whatever direction the wind might blow. On an ice island being seen a-head, and

near us, in the case of the ship being by the wind, the helm being put down, she would readily come about : If off the wind, she would come to, with the sails so trimmed as to allow her sailing past the danger ; or if this could not be, still she would be more ready to come about, and certainly be more manageable, in all respects, than if the yards had been in any other position.

The latter part of this passage between the latitude of 40° and that of Rio, was rendered tedious by frequent northerly winds. On the 24th of August, in latitude $39^{\circ} 45'$, the wind, which had been gradually hauling from the S.E. to the North-eastward, came to N.N.E., then to North, N.N.W., and latterly N.W., shifting gradually at the rate of one point in twenty-four hours. In the week from the 24th to the 31st, we made, on an E.N.E. course, only four hundred and eighty miles. During this period the wind was moderate, and the atmosphere filled with a dense haze, which made everything damp. The barometer continued high all the time, never falling below thirty inches, and generally standing at 30.30. On the 31st, in latitude 37° South, longitude 39° West, the wind came in a squall to the S.W. This wind, like the above, shifted from right to left, that is, from S.W. to South, S.E., East, and so on to N.E. North, and N.W., with a thick haze, heavy rain, thunder and lightning, and the wind blowing occasionally in strong gusts. After this it fell calm, in latitude 33° South. The breeze which succeeded was first from the N.E., but, as usual, it drew to the northward, with a thick haze, and a high swell from the same quarter. In the evening of the 5th, the wind, which was blowing fresh and steady from North, shifted

suddenly, and without any lull, or other warning, to S.W., and blew for two hours so hard, that we could barely carry triple reefed topsails and reefed courses. This breeze in twenty-four hours fell light, shifted round as formerly to the South, S.E., East, and in latitude 28° South to N.N.E. The only difference between this shift of wind, and those which preceded it, was the absence of haze. It hung in the N.N.E. quarter, blowing at times very fresh for three days, with a high short swell. On the 10th it fell calm, after which, on the evening of that day, a breeze sprung up from the S.W., and having made Round Island, off Rio, early on the morning of the 12th, in very thick rainy weather, we ran in, and anchored, after a passage of eighty-nine days from leaving San Blas.

No. XVI.

*Rio de Janeiro to Bahia, or St Salvador.
25th of November to 13th of December 1822.
(18 Days.)*

THIS passage, and that of his Majesty's ship Doris, about the same time, serve to show how uncertain the winds are on this coast. We sailed in the Conway, on the 25th of November, met with North and North-easterly winds off Cape Frio, which obliged us to stand off for nine days, at the end of which time we were one hundred and fifty miles farther from Bahia than when we first sailed. The wind now shifted to the southward and S.W., with a high swell, and much rain, and we reached our port on the 13th of December.

The Doris sailed on the 5th of December, ten days after the Conway, and reached Bahia on the 12th, one day before us.

It so happened, that, immediately on leaving Rio, she got the same southerly wind which carried us to the northward, and on the same day, but with a less distance to run. At this time of the year, northerly winds certainly prevail, and such circumstances as the above do not arise above two or three times in a season. As there are ample published directions for navigating on this coast, it is needless for me to add any more.

No. II.

TABLE of the Latitudes, Longitudes, and Vast the Shores of the Pacific Ocean, visited by his 1822. Extracted from a Hydrographical Me-

Name of the Place.	Country.	Latitude.
Valparaiso - -	} Coast of Chili. South- West } Coast of Peru.	33° 1' 48" S.
(Fort St Antonio) -		38 19 13
Island of Mocha - -		37 14 30
Arauco - - -		37 5 30
Point Lobos, Island of St Mary's - -		36 42 52
Talcahuana (Bay of) -		36 43 34
Penco (Conception) -		29 56 39
Coquimbo Bay		29 53 57
Islet A. (Bay of Coquimbo)		28 27 0
Guasco, (Outer-rock A.)		27 19 0
Bay of Copiapo, (Point A.)		18 28 35
Arica, (Town of St Mark)		17 42 00
Point Coles - -		17 13 00
Valley of Tambo - -		17 2 15
Village of Mollendo -		17 1 00
Point Isly - - -		16 15 10
Point Pescadores - -		14 58 53
Point Nasco, or Caballos		14 42 5
Infernal Rock - - -		14 35 29
Hill of Mercedes - -		14 20 0
Los Amigos Rocks - -	12 3 45	
Castle of Callao, - -	} W. Coast of Peru.	11 45 55
Ditto - - -		6 56 10
Ancon, (Point Mülatas)		
Huacho - - -		
Hill of Eten - - -		
Payta - - -		

riation of the Compass of the Various Ports on Majesty's Ship Conway, in 1820, 1821, and moir, by Mr HENRY FOSTER, R.N.

Longitude.		Variation of Compass Easterly.
East or West of Valparaiso, by Chronometer.	West of Greenwich.	
	*71° 31' 00"	14° 43' E.
2° 15' 17" W.	⊙ 73 46 17	19 34
1 42 00	⊙ 73 13 00	18 22
1 28 33	⊙ 72 59 33	15 30
0 15 4 E.	⊙ 71 15 56	
0 12 49	⊙ 71 18 11	14 0
0 21 55	⊙ 71 9 5	13 30
0 40 19	⊙ 70 50 41	13 30
1 17 44	⊙ 70 13 16	10 25
0 11 25	⊙ 71 19' 35	10 18
0 9 27 W.	⊙ 71 40 27	
0 23 9	⊙ 71 54 9	11 5
0 29 15	⊙ 72 0 15	
2 2 1	⊙ 73 33 1	11 20
3 52 57	⊙ 75 23 57	
4 13 33	⊙ 75 44 33	
4 32 48	⊙ 76 3 48	
4 36 16	⊙ 76 7 16	
5 32 12	⊙ 77 2 12	
	* 77 6 10	10 34
		10 25
		9 36
8 11 5	⊙ 79 45 5	9 0

TABLE of the Latitudes, Longitudes, and

Name of the Place.	Country	Latitude.
Island of Sta Clara (Entrance of River Guayaquil)	} Coast of Columbia	3° 13' 42" S.
Town of Guayaquil		2 02 12
Gardiner's Island (centre)	} Galapagos Islands	1 22 32
Charles' Island (Saddle pt.) —— (Post-Office Bay)		1 20 40
Indefatigable's Island, (north end)		0 33 36
James Island, (Sugar Loaf)	} Isthmus of Darien	0 18 0
Earl of Abingdon's Island (Conway's anchor.)		0 32 21 N.
Do. (S. W. point)		0 32 19
Panama (Town)		
Acapulco (Fort Carlos)	} South West Coast of Mexico.	19° 36' 20" N.
Peaked Mountain, (supposed the volcano of Colima) ;		20 24 32
Cape Corrientes		
Rock to the N.W. by N. by compass of Cape Corrientes		20 43 00
Piedra Blanca -		21 34 48
San Blas		21 32 24
Do. - -		

The Longitudes marked * have been determined
Those marked ☾ by Lunars. Those ☉ have been
which occultations were observed.

Variations of the Compass—continued.

Longitude.				Variation of Compass Easterly.	
East or West of Valparaiso, by Chronometer.			West of Greenwich.		
8°	43'	33''	W.	⊖ 80° 14' 33"	
8	8	46		⊖ 79 39 46	9° 5' E.
18	27	32		⊖ 89 58 32	
18	39	31		⊖ 90 10 31	
8	35	35		⊖ 90 6 35	
18	57	28		⊖ 90 28 28	
18	49	39		⊖ 90 20 39	8 20 7 0
East or West of San Blas.					
5°	24''	40'	E.	⊖ 99° 53' 47"	° 40'
1	41	58		⊖ 103 36 29	
0	23	59	W.	⊖ 105 42 26	
0	33	14		* 105 51 41	
0	13	40		Δ 105 32 7	
				* 105 18 27	
				⊖ 105 17 9	8 40

by occultations of the fixed Stars by the Moon. connected, by Time-Keepers, with the stations at

No. III.

Substance of a Letter to Captain HENRY KATER, read before the Royal Society, April 24, 1823, giving an Account of some Experiments made by Captain HALL and Mr FOSTER with an Invariable Pendulum, during the Voyage to South America, in his Majesty's Ship Conway.

THE following pages contain an account of the experiments made with an invariable pendulum, placed in my hands by the Board of Longitude, at the suggestion of Captain Henry Kater, F.R.S., the philosopher to whom the scientific world is indebted for this simple method of determining the figure of the earth. The principle, indeed, was known before ; but the practical application, in its present form, is due entirely to his skill and ingenuity.

It was a source of considerable regret to Mr Foster and myself, that we should have visited so many remote places, with such means in our hands, and at last have so few results to produce. The fact, however, is, that the service upon which the ship was employed had no connexion with scientific research ; and it was only at casual intervals of active professional employment, that I, at least, could attend at all to inquiries of this nature. These occasional opportunities I owe to the indulgence of Sir Thomas Hardy, Commander-in-Chief in South

America, to whose encouragement, in every pursuit having useful knowledge for its object, I stand essentially indebted.

In drawing up the account of these experiments, care was taken to state all the attendant circumstances, and to record in tables every observation in the utmost detail; so that any person wishing to examine the work, may have the best means possible of estimating their value. These tables, which are too voluminous for the present work, will be found at length in the Philosophical Transactions for 1823.

The methods followed for making the adjustments of the instruments, conducting the experiments, and deducing the results, were those laid down in Captain Kater's paper on the length of the pendulum at the principal stations of the Trigonometrical Survey. We took particular care, for example, always to adjust the diaphragm which is placed in the focus of the eye-piece of the telescope, so that its edges should coincide exactly with those of the extremity of the tail-piece of the pendulum of experiment, according to the precept at page 9 of Captain Kater's paper, read before the Royal Society in June 1819. This adjustment, it may be useful to observe, is rendered more easy and exact, by placing a card, or other white object, at a little distance behind the pendulum, when at rest. I also invariably determined the intervals by observing the moment of disappearance of the white disk behind the pendulum, not only in London, but at all the stations abroad.

I am particular in stating these two circumstances, especially the first, from its being so essential to the accuracy of the whole experiment, in all

cases where the diameter of the disk and the breadth of the pendulum, though in fact equal, happen to be placed at different distances from the eye, and therefore must appear under different angles; and not, as in Captain Kater's first experiments, (which had another and perfectly distinct object in view,) where the disk and tail-piece were so proportioned, that both occupied the same apparent angle when seen through the telescope.

We were at first disposed to think it might be better to observe both the times of disappearance and reappearance of the white disk, and to assume the mean as the true instant of the coincidence; but we found, by repeated trials, that the time of reappearance was liable to greater or less uncertainty, according to the degree of light, and other unmanageable circumstances; and, having satisfied ourselves that the method of obtaining the intervals by observing the disappearance, was rigorously correct in principle, we adhered to it ever afterwards, as being more simple and infallible in practice. It is meant by this, that in all *comparative* experiments, such as these were, the method of disappearances is rigorously accurate. It formed no part of our object to determine the absolute length of the pendulum; and therefore we considered it needless to encumber ourselves with a troublesome method of observing, when another, perfectly easy and simple, and equally correct, was within reach. To those who have not considered the subject attentively, and who may be desirous to know what difference it caused, it will be satisfactory to learn, that when experiments are made, at different places, by observing the disappearances only, the results are strictly comparative, and, in point of fact, give

identically the same results with those deduced from observing both the disappearances and the reappearances, and taking the mean for the time of true coincidence. This assertion is the result of an actual comparison of the two methods.

In making these statements, it is not only due to Captain Kater, but may, perhaps, be useful to future observers, to state, that, after many trials of fancied improvements and simplifications of his methods, both in the conduct of the experiments themselves, and in the subsequent computations, we were finally obliged to acknowledge, in every instance, even where we succeeded, that we had, by more labour, or by more circuitous paths, reached the same point to which his admirable rules would at once have led us.

From having carefully studied Captain Kater's works before leaving England, we had conceived ourselves sufficiently qualified to undertake a course of experiments at once. In this, however, we were mistaken; and the consequence was, that of two extensive series made at Valparaiso, neither proved sufficiently accurate to deserve notice. The experience, however, gained in the course of these operations, enabled us ever afterwards to proceed with confidence. And here it may be well to suggest the advantage which, on future occasions, might arise from having the whole experiment performed in England, by the person who is afterwards to repeat it abroad, not under the hospitable roof of Mr Browne, to whose invaluable assistance every one who has attended to this subject is so deeply obliged, but in the fields, and with no advantages save those which he could carry with him. He would thus, in good time, discover omissions in his

apparatus, which are not to be supplied abroad, and be aided in surmounting difficulties before he had sailed beyond the reach of appeal.

The first series of experiments was made in London. The next was made thirty-two miles and a half north of the equator, at one of the Galapagos, a group of islands in the Pacific, lying upwards of two hundred leagues west from the continent of South America. It was intended that a station should have been chosen immediately under the line, but the ship being swept to leeward in the course of the night by a strong current, this object could not be effected without losing more time than circumstances admitted of being spent in that quarter.

The spot chosen for the experiments lies near the extremity of a tongue of land running into the sea at the south end of Abingdon Island, where it forms the western side of a bay, about a mile across. The point is a stream of lava, which, in former ages, had flowed down the side of a peaked mountain, standing in the middle of this end of the island. The summit of this peak is between two and three miles from the station, in a direction nearly north, and is about two thousand feet high. It slopes rapidly at first, so as to form a tolerably steep cone, terminated by a broad and gently-sloping base of a mile and a half. The sides of the mountain are studded with craters, or mouths, from whence, at different periods, streams of lava have issued, and run down to the sea, where they have formed sharp projecting points, such as that on which we now fixed our station. The western face of the island presents a cliff nearly perpendicular, and not less than a thousand feet high; it exhibits a rude stra-

tification of lava, tuffa, and ashes, materials which characterize the fracture of ancient volcanic mountains. I am thus minute in describing this island, that the reader may be enabled to judge how far its density may have modified the results of the experiments. It is ten or twelve miles long; the north end being a continued system of long, low, and very rugged streams of lava; the peak standing about one-third of the whole length from the southern extremity, where our station was. The rock, at different places not far from the station, was found to be full of caves, into which the tide flowed through subterranean channels; the outer crust of the stream having, as usual, served as a pipe to conduct the lava off: it is therefore probable that our foundation may not have been the solid rock; a circumstance which, taken along with the general hollow nature of volcanic districts, and the deepness of the surrounding ocean, renders these experiments not so fit to be compared with those made in England, as with others which may be made hereafter on a volcanic soil.

The range in the temperature, in 24 hours, was from 74° to 91° ; and, as we were obliged to place the instruments in a tent, the thermometer rose greatly in the day-time, and fell as much at night, but unfortunately without much uniformity. On the first day of observing coincidences, a set was taken after breakfast, and another before dinner; but it was soon seen that this would confine the observations exclusively to the hot period of the day; it was therefore determined to take in future one set as soon after sun-rise as possible, in order to have a result in which the performance of the pendulum should be modified by the whole night's

continued low temperature ; and another set towards the close of the day, to obtain a result partaking in like manner of the influence which the whole day's high temperature might have on the length of the pendulum. We also endeavoured so to arrange things, that we might catch a sufficiently long period of uniform temperature during the interval of observing, that all the coincidences of each set might be taken with an unvarying thermometer. By these arrangements it was hoped, that although no one experiment could produce strictly correct results, the errors of the morning and evening observations, being of a contrary nature, might counterbalance one another ; that the mean, in short, between observations taken in the hot and in the cold periods of the day, would probably give such a result as might fairly stand by the side of rates deduced from transits of stars, the intervals between observing which, in like manner, included the very same extremes of temperature.

It should be carefully borne in mind, that the real desideratum, as far as respects rate, is not to know what is the aggregate loss or gain of the clock in twenty-four hours ; or, in other words, the mean rate ; but the actual rate at which the clock is going during the particular period of observing : That is to say, the number of beats, and parts of a beat, which, were the clock to go on uniformly from that instant, would be indicated by its dial-plate, in 24 hours of mean time. As the method of transits of stars, however, gives only the average rate, or that due to the middle point of time between the transits, we sought, by the arrangements above stated, to obtain, in like manner, average results, by taking the mean of observations with the pendulum made at the extreme temperatures.

One thermometer was suspended, so that its bulb stood an inch in front of the middle part of the pendulum, while another was hung lower down, between the clock-case and the pendulum. The average temperature at night was 74° , and in the daytime, from 86° to 90° ; the latter, as I have said, depending principally on the state of the sky. The allowance for expansion was made from the deductions which resulted from experiments made by Captain Kater on a similar pendulum.

An astronomical circle, by Troughton, was used as a transit instrument, and was so placed in a small octagonal observatory of light pannels, communicating by a door with the tent, that the clock could be seen, and its beats heard, by the observer at the instrument; thus, with the exception of the first day's transits, the time was recorded directly from the clock, without the intervention of a chronometer. The meridian mark was placed near the sea, at the distance of 806 feet: a strong post having been driven into a cleft of the rock, and firmly secured, a screen was nailed to it made of copper, and perforated with a set of holes, from one-fourth to one-tenth of an inch in diameter, and readily distinguishable from the Observatory. This fixed screen being made in the form of a box to receive the lamp, it became impossible to misplace the light. The instrument was brought down to this mark, and the level carefully examined, before and after every observation, except with some stars which followed too close upon one another. The sun was fortunately observed at noon every day; and as its rays were never allowed to touch any part of the instrument, or to enter the Observatory, except at the moment of noon, and then

only through a small aperture, I had reason to hope that none of the adjustments were, at this observation, ever deranged. As the great alternations in temperature alluded to above might naturally be expected to cause fluctuations in the going of the clock, it was satisfactory to have a series of frequently recurring tests, brought to bear upon this essential particular. As the same precautions were observed at every station, this account of them will apply to the whole series of experiments.

But in order that no higher than a correct estimate be formed of this insulated experiment, it is right to describe the peculiar circumstances under which it was performed. It was above all to be regretted that we were so much limited in time, that we could not engage in a fresh series, either at the same island, or on some other lying nearer the equator: but the service upon which the Conway was employed, rendered it necessary that our stay should not be longer at the Galapagos than the 16th of January. Now, as we anchored at Abingdon's Island on the 7th at noon, there were barely nine complete days in which everything was to be done. We had to search for a landing-place, which occupied a considerable time; to decide upon a station; to rig up our tents; to build the Observatory; then to land the instruments, and set them up; and as we had no time for trials and alterations, everything required to be permanently fixed at once. We were fortunate in weather during the first two days, when our things were all lying about, and our habitations ill assorted; but on the third night it rained hard, and the water which trickled through the canvass caused us some discomfort, although we

fortunately succeeded in sheltering the instruments. The heat during the day was not only oppressive at the time, but very exhausting in its effects; and at night, although the thermometer never fell below 73° , the feeling of cold arising from the transition from 93° , to which it sometimes rose in the day, was no less disagreeable.

It was with reluctance that I left the neighbourhood of the equator, without having made more numerous and more varied, and consequently less exceptionable observations on the length of the pendulum. It would, above all, have been desirable to have swung it at stations more nearly resembling those with which its vibrations were to be compared. Thus, the results obtained from the experiments at the Galapagos, though curious in themselves, are not so valuable for comparing with those deduced in this country. The time may come, however, when they may be rendered more useful; that is to say, should experiments be made with the same pendulum at stations remote from the Galapagos, but resembling them in insular situation, in size, and in geological character; such as the Azores, the Canaries, St Helena, the Isle of France, and various other volcanic stations amongst the eastern islands of the Indian and the Pacific oceans. The advantage of having it swung at the Cape of Good Hope, and especially at the Falkland Islands, which lie in the correspondent latitude to that of London, and at various other stations on the main land, or on large islands, is still more obvious.

OBSERVATIONS MADE AT SAN BLAS DE CALIFORNIA.

San Blas is a sea-port town on N.W. coast of Mexico, in latitude $21\frac{1}{2}^{\circ}$ N. and longitude $105\frac{1}{4}$ W. and not far from the south point of California. The experiments were performed under favourable circumstances, the sky being clear, the temperature steady, and the rate of the clock uniform. The station, indeed, was more elevated than could have been wished, being 115 feet above the level of the sea, on the summit of a cylindrical rock of compact whin-stone, and measuring not more than 500 feet across, and nearly perpendicular in three quarters of its circumference.

The length of the seconds pendulum at San Blas, by these experiments, appears to be 39.03776 inches, and the mean ellipticity $\frac{1}{313.55}$.

By a second series of experiments at San Blas, the details of which are given by my coadjutor, Mr Henry Foster, the length of the seconds pendulum is made 39.03881, and the mean ellipticity $\frac{1}{308.56}$. The circumstances in this case, however, were not so favourable as those of the first series, being to one another in the ratio of 47 to 397, or nearly as 1 to 8. This arose from the change which took place in the weather at that period, the sky being overcast, the temperature fluctuating, and the rate of the clock unsteady.

RIO DE JANEIRO.

Two extensive series of experiments were made

at this place, first by myself, and then by Mr Foster; the total number of the factors in the first case being 210, and in the second 452. The results agree with surprising exactness for operations entirely unconnected. The length of the seconds pendulum by my experiments, being 39.04381
 By Mr Foster, 39,04368

The mean ellipticity by my experiments is, $\frac{1}{301.77}$
 By Mr Foster, $\frac{1}{302.37}$

The circumstances in both cases were favourable, especially in the steadiness of the temperature, and the uniformity of the clock's rate; but as they were decidedly most favourable in the case of Mr Foster's experiments, I have no hesitation in considering his as the most entitled to credit.

Mr Foster is the gentleman to whose co-operation I owed so much when observing the comet at Valparaiso; an account of which, in a letter to Dr Wollaston, appeared in the Transactions of the Royal Society for 1822. His present work speaks sufficiently for itself; but I should be doing him scanty justice by confining myself to such a reference, without also stating that, occupied as I was with professional duties, it would have been hopeless to have undertaken these experiments, without the valuable assistance of a person who, besides being free to attend exclusively to the subject, was thoroughly skilled in all its details.

This zealous officer has since been promoted to the rank of Lieutenant, and after being elected a Fellow of the Royal Society, accompanied Captain Parry on his voyage to the N.W. in 1824 and 25. The very important experiments which he has made in those regions, and which will shortly appear be-

fore the public, justify the high promise which I had some years ago the honour to make in his favour.

Being desirous of presenting an account of these operations to the Royal Society before the vacation of 1823, I had not time to repeat the experiments in London before the above letter was read. Since that period, however, I ascertained, by careful observation, that the number of vibrations made by the pendulum now, did not accord with that which resulted from the experiments made in London before the voyage. The number of vibrations of this pendulum, in London, in May 1820, before the voyage, was 86235.98

The number in August 1823, after the
voyage, was 86236.95

The difference being97

As it was not possible that so great a difference could arise from errors of observation, it became an object of anxious inquiry to discover the cause. Captain Kater was disposed to assign it to an accident which had happened to the pendulum at San Blas, but which I, at first, imagined inadequate to such an effect. The accident was this: the pendulum, when not in use, was, as usual, raised by means of a screw, so that the knife edge was lifted clear of the agate planes on which it vibrated during the experiments. This screw being too small, or having some flaw in it, unexpectedly broke at San Blas before the experiments there were begun; and although the knife edge was not raised more than the twentieth of an inch, yet, as the pendulum weighed more than 15 lbs., the fall might, he

thought, have altered the form of so delicate an edge in a slight degree, and thus have virtually lessened the distance between the point of suspension and the centre of oscillation; for if the knife edge be supposed to have become cylindrical, the virtual point of suspension, as has been demonstrated, would be at the distance of the radius of curvature of this cylindrical portion below its surface, and the number of vibrations of course be greater than before.

As the whole pendulum had acquired a coating of oxide, with the exception of the tail-piece, which was lackered, I was desirous of ascertaining in what manner, and to what degree, its vibrations would be affected by this partial addition of weight; and for this purpose the following experiments were made:—The vibrations of the pendulum in its oxydized state having been determined, 10 grains of weight were affixed at $\frac{2}{3}$ of the length of the bar, measured through the ball, from the point of support, that being supposed to be near the centre of oscillation of the oxide. This had for its object to discover, before cleaning the pendulum, what would be the effect of an addition of weight at that place. On swinging it accordingly, the number of vibrations was increased 0.83 in 24 hours. It was then taken to the Mint, and the weight, carefully determined by Mr Barton in one of his delicate balances, was found to be 15 lb. 10 oz. 14 dwt. $12\frac{1}{2}$ grs. It was next cleaned by Captain Kater, by means of diluted sulphuric acid, and afterwards washed with a solution of soda in water, and being effectually dried, was again weighed, when it was found to have lost exactly $24\frac{3}{4}$ grains. Coincidences were now taken on three succeeding days,

and the number of vibrations of the pendulum in its clean state proved to be fewer than when it was coated with oxide by only 0.73 of a vibration. Since no more than $\frac{1}{3}$ part of the oxide removed could be oxygen, only $\frac{1}{3}$ of the above difference between its vibrations when clean and when coated, or 0.14, can be ascribed to additional weight since it was formerly swung in 1820; the real difference, however, to be accounted for, being 0.97, this cause is manifestly inadequate to the effect. I therefore thought it right, after attentively considering every other possible manner in which the pendulum could have been altered, to adopt the idea which had been suggested, and which was eventually proved to be correct, since the knife edge, upon removal after the experiments were over, was found to be distinctly rounded. To obtain the most correct results, I accordingly used the vibrations made in London in 1820, to compare with the experiments made before the accident, and the vibrations recently determined in London for comparing with those made after it; an arrangement rendering the resulting ellipticities entirely independent of that circumstance.

Abstract of the most exact Results at each Station.

Stations.	Diminution of Gravity from Pole to Equator.	Ellipticity.	Length of Equat. Pend.
Galapagos 0 52 0 N.	.0051412	$\frac{1}{284.98}$	39.017196
San Blas, 21 50 25 N	.0054611	$\frac{1}{313.55}$	39.00901
Rio, . 22 55 22 S.	.0055431	$\frac{1}{302.57}$	39.01206

No. IV.

NOTICE ON THE CLIMATE

Of the Western Coasts of South America and Mexico, and on its Effects on the Health of the Residents and of Strangers. Extracted from a MS. Memoir on the Climate and Diseases of South America,

BY GEORGE BIRNIE, Esq. R. N.

Surgeon of his Majesty's Ship Conway.

IT may be interesting to notice, briefly and generally, the diseases to which Europeans will be more particularly liable on visiting the western coast of America. For the sake of perspicuity, the coast may be divided into three parts:—The first extending from Valdivia, in latitude 40° South, to Coquimbo, in latitude 30° South; the second from Coquimbo to Payta, in latitude $5\frac{1}{2}^{\circ}$ South; and the third from Payta to the Gulf of California, which lies in latitude 23° North. The first of these divisions comprehends nearly the whole coast of Chili, inhabited by the descendants of the Spaniards. Chili lies between the Pacific Ocean and the Andes, and has a mean breadth of about 120 miles. It is one of the most healthy and delightful countries in the world; for though it borders on the torrid zone, it never suffers the extreme of heat, the Andes defending it on the east, and gentle breezes refreshing it from the west. It possesses an equable and serene temperature, of about 64° . It is neither af-

flicted by intermittent fevers nor dysenteries. Some years, in the summer and autumn, there occur a few cases of an ardent fever, called by the Indian name of Chao longo, which means disease of the head. This complaint, in robust subjects, is extremely violent and rapid in its course, but yields readily to bleeding and purgatives.

The second division, from Coquimbo to Payta, embraces a line of coast of about 1500 miles in length, and 70 in breadth; the chief characteristic of which is, that no rain ever falls in all this immense track, and the sun is generally obscured by a canopy of clouds; in consequence, the country bordering on the shore, for an indefinite breadth inland, is one sterile sandy desert; and, with the exception of a few fertile valleys, at immense distances from one another, it exhibits an almost continued scene of desolation and barrenness beyond all description. The mean temperature may be called 74°, and the diseases which sojourners have chiefly to fear are intermittent, and continued ardent fevers, affections of the liver, cholera morbus, and dysentery. I have entered at length, at another place, into the discussion of these subjects, and shall merely observe here, that by living temperately, by avoiding exposure to the night air, or sleeping on the ground, and by attending to the digestive functions, one may contrive to live comfortably, and preserve tolerable health, in most parts of Peru. On this part of the coast we had but little sickness in the Conway; but some of the vessels trading along-shore suffered severely from intermittents, particularly at Arica, and the Patriot Army under San Martin lost nearly one-third of their number when encamped at Huacho, by dy-

sentery and intermittent fever, and their consequences. Most of the diseases of Lima have their immediate origin in affections of the stomach, so that there is no disease which they do not refer to Empachos, or indigestions, literally surfeits; and these, and all their other complaints, they ultimately refer to the effects of cold. Indeed, between the tropics, the irritability of the human frame is so much increased by the uniformity and continued action of habitual stimulus, that it becomes sensible to alterations not indicated by the thermometer, and depending solely on the humidity and dryness of the atmosphere.

The third division, extending a distance of nearly 1700 miles from Payta to the entrance of the Gulf of California, forms a perfect contrast with the second. All this humid and burning coast has alternate wet and dry seasons, and is clothed in the most luxuriant vegetation, which approaches to the water's edge. The mean temperature may be called 82°. Mangroves, avicennias, and other shrubs, flourish abundantly along these swampy shores; and their intertwining roots form retreats for molusca, and an infinite variety of shell-fish and insects. Places of this kind are invariably deleterious to the human constitution. The heat and humidity of the air increase the developement of diseases in two different manners—by increasing the irritability of the organs, and by the production of miasmata.

The disease which we chiefly encountered in this track was an ardent fever, resembling in every respect the yellow-fever of the West Indies, both in the suddenness of its attack, and the violence of its symptoms. It yielded to precisely the same treat-

ment, by copious and properly regulated bleeding, and purgatives—remedies which, in every case, proved successful.

I may shortly observe, that to me it appears extremely probable, that the yellow, or higher grades of remittent fever, would seldom prove mortal, were it met in the first stage by bold and decisive blood-letting, and that blood-letting alone has any power over it. For this purpose, however, we must not be guided in our bleeding by the number of ounces taken away, but by the effect produced upon the disease. We must bleed at the commencement of the attack until the pain be removed, the skin rendered soft, and the morbid heat have disappeared; and when these symptoms return, as they often do, we must again bleed until their removal. Dr Rush observes, and my experience confirms the observation, that, “in the use of this remedy, it may be truly said, as in many of the enterprizes of life, that nothing is done while anything remains to be done.” In fevers and other diseases which run their courses in a few days or hours, and which threaten immediate dissolution, there can be no limits fixed to the quantity of blood which may be drawn at once, or in a short time.

Whenever an extensive commerce shall attract numbers of people from more temperate latitudes, to this last division of the coast, there is no doubt but the yellow-fever will prevail as extensively, and prove as destructive, as it does on the eastern coast. The heat and miasms, which only perpetuate a general state of bad health and debility in the inhabitants, will act upon these robust strangers with great violence and rapidity, just as it happens on the opposite coast. The inhabitants of this coast in-

variably remove, in the winter season, from the shores to the high grounds. The winter, as it is termed, is from June to November inclusive, during which violent rains, storms, and excessive heat prevail, rendering the neighbourhood of the sea almost uninhabitable.

“ It has been long remarked, that the epidemics at Callao and Panama have commenced on the arrival of vessels from Chili; not because that country, which is one of the happiest and healthiest of the earth, can transmit a disease which does not exist there, but because its inhabitants, transplanted into the torrid zone, experience, with the same violence as the inhabitants of northern countries do, on going to the West Indies or Vera Cruz, the fatal effects of an air excessively warm, and vitiated by a mixture of putrid emanations.”* According to Dr Unanue, “ Even black cattle reared on the mountains cannot support the temperature of the coast; as soon as they come down to it they are affected; according to the vulgar expression, viz. they grow stupid, and perish with frightful rapidity. On opening them, the liver is found hardened, as if it had been placed on coals. The butchers know by experience, that cattle die much faster in summer than in winter; and therefore choose the latter season to provide their supply for the Lima markets.” †

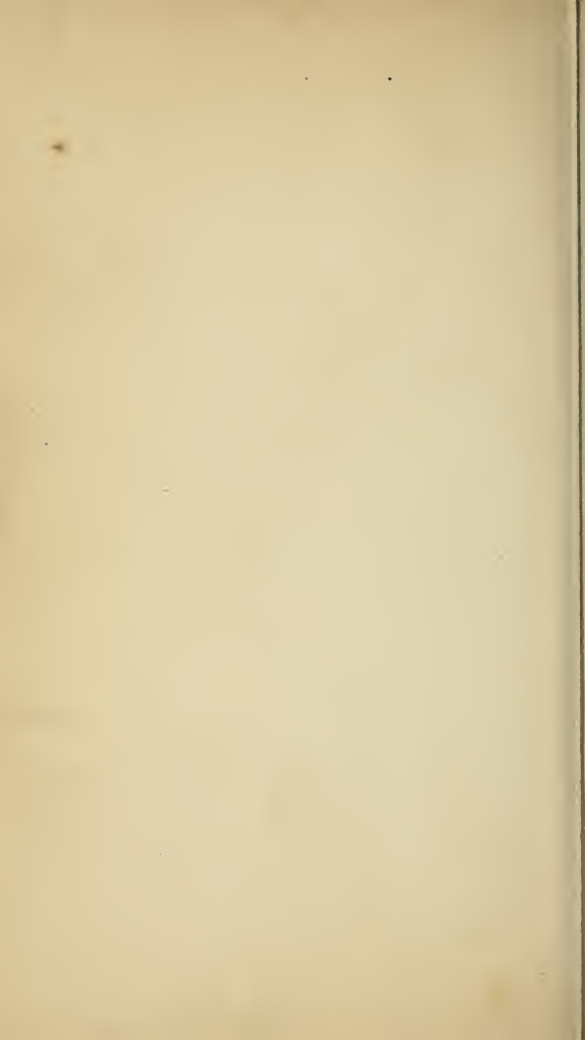
* Humboldt's *New Spain*, vol. IV. p. 153. See also Unanue, “ *El Clima de Lima*.”

† *El Clima de Lima*, p. 65.

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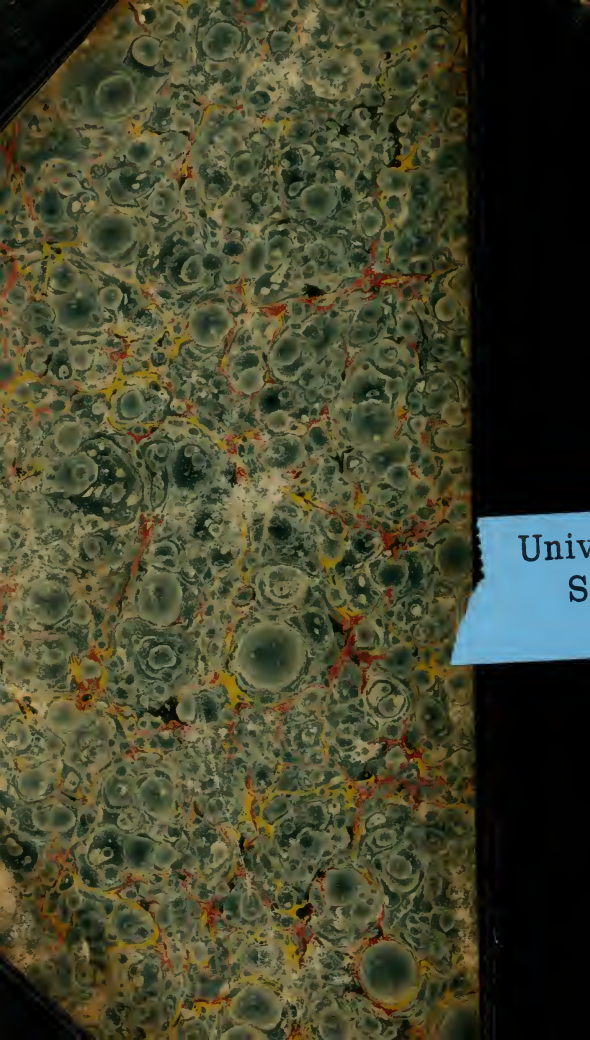
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